MURDER ON MARS

Hugh Walters

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by the same author

BLAST OFF AT WOOMERA
MOON BASE ONE
EXPEDITION VENUS
DESTINATION MARS
JOURNEY TO JUPITER
SPACESHIP TO SATURN
NEARLY NEPTUNE
FIRST CONTACT?
PASSAGE TO PLUTO
TONY HALE, SPACE DETECTIVE

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Sir Billy Gillanders was looking extremely worried.

"I just don't know how it could have happened!" he repeated for the third or fourth time.

He was talking to four young men in what served as his office when he was in London. U.N.E.X.A., the United Nations Exploration Agency of which Sir Billy was the Director, had a world-wide role. Indeed, it was a role that extended throughout the solar system. U.N.E.X.A. had centres in most countries, but the largest were in America, Russia and Britain. This former Air Ministry building was just one of the score or so scattered throughout London.

"Every person in that Base had an absolutely clean certificate," Sir Billy went on. "Every man and woman had been thoroughly vetted, psychoanalysed to the 'n'th degree, and pronounced completely stable."

"Yet one of them is a murderer," Chris Godfrey, Sir Billy's deputy, observed quietly.

Chris, an experienced astronaut himself, had been promoted to be Deputy Director, but had had very mixed feelings about his elevation. Whilst he appreciated the honour, he was very reluctant to give up space travel, which had been his absorbing passion since his boyhood. Besides, his new position meant that he saw much less of his best friends—the three astronauts who were now with him in Sir Billy's office.

"It couldn't possibly have been an accident?" Morrey Kant, the big blond American, asked.

"No. The slits in the suit were too artificial for that," the Director sighed. "That had been made very deliberately by someone who knew what he was doing."

"Could the man have killed himself?" Serge Smyslov, the dark wiry Russian, enquired.

"As far as we know, Baines had no reason whatsoever for taking his own life," Chris replied. "But no doubt that is something you will investigate very carefully when you're there."

"When do we go?" asked the third astronaut. Tony Hale was the youngest of the spacefarers, and was the mechanical genius of the little team. For the moment the almost perpetual grin was missing from his face. He knew that the trio had a serious and important task in front of them. A murder had been committed at the Base on Mars. Their assignment was to go out there, find the murderer and bring him back to Earth for trial.

"A special ship will take you. You will lift off from Kennedy at this time tomorrow," the Director replied.

Whow! Tony Hale breathed to himself. The Boss is in a hurry.

It was true. Sir William Gillanders, Director of the United Nations Exploration Agency, was faced with a new problem. A murder had been committed for the first time in space. Minor crimes had occurred before among the hundreds of men and women manning the lunar Bases and Mars City. But this was the first time that the gravest crime of all had taken place. It must be attended to without a moment's delay.

To kill a fellow human being is bad enough here on Earth. But murder in a small, closely-knit community such as the Martian Base could have the most dire consequences unless the murderer was apprehended quickly. It was easy to imagine the panic that would spread among the staff with an undetected killer at large among them.

"Can you run over the facts again for us?" Morrey asked. He would lead the three-man team that was being sent to try to solve the mystery.

The Director read from a sheet of paper on top of his desk.

"This is the report of the Base Commander, Commander Morrison," Sir Billy began. "It was received over the scrambler radio yesterday. He says 'At 11.04 hours G.M.T. this day, the body of William Baines was discovered in a shallow crater about 3,500 metres north-north-east of the Base. The discovery was made by a team returning from investigating a new fissure which has appeared along the ridge of Collier's Hill.

"'From the position of the body, Dushlak, the chief geologist, thought that Baines must have fallen and injured himself, or perhaps been taken ill. Close investigation revealed that, as seen through the vizor of his helmet, his face showed the classical signs of de-oxygenation. There was no doubt that he was dead.

"'The geology team brought the body back to base, where an immediate autopsy was performed by our three medical officers. They submitted to me a unanimous report that Baines had been dead about four hours, and that his death had been caused by lack of oxygen following loss of pressure in his suit. Meanwhile his equipment was carefully examined. It had been assumed that he had somehow punctured his suit by accident, so letting his oxygen seep away to the vacuum outside. Instead, five slits were found in different parts of the suit. Each was about four centimetres long and had been made with a very sharp instrument. This eliminated the possibility that Baines had fallen and had punctured his suit on a piece of rock.

"'When the body was again examined, no injury was found to correspond with any of the slits. My conclusion is that they had been cut before Baines put on the suit. Seepage from them would be quite slow and might not be noticed for some time. Certainly it would be hard to detect the slits except by a very careful examination.

"'I request that you despatch someone to investigate this matter immediately.' W. G. Morrison, Commander."

Sir Billy put down the paper and took up another.

"This is the record of Baines which I've had from our personnel department," he said. Chris took it and read it aloud.

"'William Baines, aged twenty-nine, single, electronics specialist. Is to be married during his next spell of leave, which is due in eight days. His work is completely satisfactory. He is a good mixer, and gets on well with his colleagues. He is of a cheerful disposition, and has a good sense of humour. All the people he works with like him, and he seems to enjoy his work.

He made a special request to be posted to the Martian Base.' "

"All that," Chris Godfrey went on, "is from the records we keep, which are maintained right up to date. As you know, every member of a base or space station has to be kept under constant surveillance in order to detect at once any physical or mental indisposition."

"From that it does not seem that this man would kill himself," Serge pointed out. "He was happy and soon to get married. He was good at his work and liked it. But had he any unknown enemies? It is not always easy to tell what one person thinks of another."

"That is true," Sir Billy Gillanders agreed, "But if any of Baines's companions hated him enough to kill him, he surely could not have hidden his feelings completely."

"Still, Baines didn't kill himself," Tony pointed out. "At least it's most unlikely, unless he had a sudden mental disturbance. That does happen, you know."

"We know," Chris conceded, "but such a brain-storm is very rare. Baines was a stable young chap with everything to look forward to. He doesn't strike me as the type who would suddenly up and kill himself."

"Nor would he cut slits in his suit," Morrey added. "That's something I don't understand."

"There's a lot we don't understand," said Sir Billy, "and that is why you fellows have to get to Mars as quickly as possible. We've just got to get this thing cleared up without delay, or the effect on the morale of the Base personnel could be serious."

"Is there anything you want to know?" Chris asked.

"How shall we conduct the enquiry?" Morrey demanded. "Shall we take our instructions from Commander Morrison?"

"No. You have a perfectly free hand. You will work independently of the Commander, who will be instructed to give you every assistance."

There seemed little else to say. The three young men would have to obtain most of the facts themselves when they arrived at Mars City. Meanwhile, the Director said, it would be better if they kept an open mind on the subject, for any preconceived ideas might prove a handicap once the real investigation had begun.

During the momentary silence that followed Sir Billy's last words, Tony idly pushed a couple of fingers into an inside jacket pocket. A half smile came to his face as he felt a metal object. There was no need to pull it out to know what it was. Indeed, he would have been embarrassed if he had shown it to the others. For the object he was fingering was a star-shaped metal badge with the words "SPACE DETECTIVE" engraved on it.

This was the badge that had been presented to him, mainly as a joke, after that amazing adventure on the Moon. It had been Tony who had been chiefly responsible for solving the mystery of the disappearing men, for Morrey and Serge themselves had vanished from the lunar base during their investigations. Only the tenacity, logical reasoning and cool courage of the young space mechanic had saved his friends and their fellow victims. Back on Earth, at the conclusion of a very successful mission, Sir Billy had smilingly rewarded Tony with an old-fashioned sheriff's badge carrying a very modern inscription. And why not? Tony had indeed become the first Space Detective.

But if the disappearances on the Moon had been baffling, the murder on Mars was distinctly sinister. The worst of all crimes had been committed in that tight little community on Earth's fellow planet. Everyone in Mars City must have known the victim, and everyone must know the criminal. Fewer than two hundred men and women staffed the base. Surely it wouldn't be too difficult to discover the guilty person.

So Morrey, Serge and Tony, whilst not relishing the task they had been set, were optimistic about its result. Sir Billy had said that the most important thing was speed, so that the hidden menace could be removed from the Martian base without delay. Not until this had been done could the men and women who worked there relax and do their proper jobs. So the sooner they were on their way, the better.

"I'm coming with you as far as the Cape," Chris announced. "I'm sorry it isn't all the way."

It was still a sore subject with the Deputy Director that he'd been grounded and was no longer able to share the adventures in space with his friends. True—he'd gone on an unexpected and unusual mission to the Moon during the previous spot of bother, but this was unlikely to happen again. So he was trying hard to accustom himself to seeing others traverse the highways and byways of the skies.

There wasn't much time to lose. The supersonic jet bearing U.N.E.X.A.'s insignia would be leaving Heath Row, London's vast airport, at 6 a.m. next morning. Fortunately the three astronaut-detectives had little packing to do. Their clothes and personal belongings would be of no use in Mars City. Special apparel and equipment would be provided when they reached Cape Kennedy. There were just a few friends to take leave of, and, of course, the traditional meal with Chris.

So it was that, less than an hour after the meeting with Sir Billy had ended, and though it was still early in the evening, Chris led his three friends to their reserved table at the famous Brompton Grill. It was said that here you could get the best steaks in London, and that if you could clear your plate the Management would be amazed and would make no charge. It had always been Tony's ambition to put this to the test, and tonight he was determined to try harder than ever.

During the meal the four young men talked together happily. They exchanged news of their old friends Lord Benson and "Whiskers" Greatrex. Both were reasonably well but rarely came to London. The four agreed that one of the first things they would do, after this trouble on Mars had been cleared up, would be to visit their former colleagues.

They reminisced about space adventures of the past and speculated whether Man would ever break through the light barrier just as, long ago, he'd broken through the sound barrier. Until he could do so, Man would be confined within the limits of his own solar system. Now that atomic engines had been so improved that spacecraft could be boosted up to nearly half the speed of light, the Sun's family of planets seemed very close. But only when astronauts could visit other solar systems would they feel they had broken out of their present confines.

"And it is then that we shall discover other worlds like our own, other civilisations with whom we can talk," Chris declared, warming to his favourite subject.

"I wonder what they will be like," mused Tony. "They could be very different from us."

"Undoubtedly they will," agreed Chris, "but we shall find some means of communication."

"Suppose they are hostile," Tony said.

"A few may well be, but not most of them," Morrey declared. "You see, if their civilisations are older than ours, presumably they will be much wiser. If they are more primitive then their capacity to harm us will be very limited."

"Remember when we first visited Mars? We certainly found evidence of advanced life forms there," Chris reminded them. "Unfortunately we still know little about them."

So the four friends talked on about the subject that held them all in its thrall—Space. Tony ploughed manfully through his main course, gradually falling more silent as he struggled to achieve his ambition. But in the end he had to concede defeat. He pushed his plate forward, unable to manage the last bit of the vast steak.

"I'm not in training," he explained apologetically. "Perhaps I'll manage it next time."

There was no hurry for them to leave the restaurant. There were no waiters hovering round with the bill. So they drank at least three coffees each as they talked together. For next day three of them would leave for Mars, and who could say what perils they would have to encounter before they all met again?

At last it was time to leave, Chris to go to his flat and Tony, Morrey and Serge to their hotel. Chris hailed a taxi for his friends.

"Don't be late in the morning," he called as he waved them off. Tony gesticulated vigorously through the vehicle's back window.

"What do you think about the job?" Morrey asked as the trio talked together in his room.

"Should be a piece of cake," Tony declared. "After all, there's a very limited number of people to choose from."

"I'm not so sure," Serge said thoughtfully. "If a murder has indeed been committed, then the killer planned the crime with care. He—or she—will be just as careful not to be detected."

"Above all, we must be constantly on our guard," Morrey told his companions. "We shall be marked men. Everyone, including the killer, will know why we are in Mars City. So we must be vigilant all the time."

"Do you think we shall be in danger?" asked Tony soberly.

"Not knowing who the killer is, or how his mind works, I don't know," Morrey replied. "If he has a mental condition, or is desperate, then he could take action to prevent himself from being detected. On the other hand, if he sees his exposure approaching, he may give himself up. But we can't afford to take any risk."

There was a few moments' silence as each of the three turned the situation over in his mind. The mission on which they were about to embark could be dangerous. Never before had a murder been committed in space. They were up against something entirely new. What stresses would they encounter? What motives would they uncover?

"Turn in now, fellows," Morrey ordered at last. "We've only five hours in bed."

2

Serge had to knock very loudly on Tony's door before the mechanic awoke.

"Come on. You are late," the Russian accused him.

"Gosh! I can't open my eyes," Tony groaned. "Is it really time to get up?"

"It is. The car will be here for us in twenty minutes. You should not have eaten so much last night," Serge said.

"I wanted a free meal," Tony mumbled, as Serge heaved him from his bed.

As they expected, both Chris and Sir Billy were waiting for them at London Airport. They went through the terminal buildings without the usual formalities, and then out to a minibus parked nearby. Soon they were speeding towards a distant runway used exclusively by official planes. There the blue and white U.N.E.X.A. jet was waiting with the cabin door invitingly open and the gangway in place. The little party spilled out on to the tarmac and Sir Billy followed.

There was a brief shaking of hands and exchange of good wishes, and as the Director got back into the minibus the four young men climbed the steps into the plane. Chris paused at the top to wave, but the minibus had already turned round and was on its way back.

"Are we the only passengers?" Tony asked, seeing the plane was almost empty.

"Yes. It's laid on specially for us," Chris laughed. "So you can spread out a bit."

"Going back to sleep?" Serge asked with a smile.

"Not me," Tony replied indignantly. "We shall be served with breakfast soon. I'm not going to miss that."

In a surprisingly short time the coastline of Florida was spread out like a vast relief map. Already the plane was losing height and circling ready for its approach. Looking through one of the windows Tony picked out the long straight lines that were the runways. This was the Kennedy Air Force Base, for the old military establishment was close to the spaceport, and was now used exclusively for spaceport traffic.

Ah! There was Cape Kennedy itself. Connected to their landing ground by a straight road several miles long was Earth's first and largest space establishment. Kennedy had grown vastly in size and importance since the first hesitant steps into space had been taken from it so many years ago. Now it was a busy port despatching and receiving spaceships to and from orbiting stations and the planets with regularity and frequency. It was here that, in the gigantic V.A.B.s—vehicle-assembly buildings—ships were finally assembled and tested. Tony could see, far below, several of the vast structures, each so large that it had its own interior climate. Once, when he had been at work inside one of the V.A.B.s, there had been a drizzle of rain from internal condensation, even though the torrid sun was glaring in a cloudless sky outside.

Tony counted over a score of ships sitting on their launch platforms. Some had service gantries alongside. Others were obviously ready for lift-off.

"I wonder which is the Mars ship," Tony said to Serge, who had joined him at the window.

The Russian studied the array of ships below.

"That is the one," he said, pointing at one of the waiting monsters.

"Oh, I see," Tony agreed, looking closely at the spaceship his friend had indicated. "The atomic motor."

Chris had now joined the other two. There was no need for him to explain to the astronauts that, whilst an atomic motor was now powerful enough to lift a ship off the Earth and to boost it to escape velocity, this was not permissible because of radiation hazard it would cause. Instead the ship would be launched with the "old-fashioned" liquid-oxygen-liquid-hydrogen motor until it had reached a height of ten thousand miles above the Earth. Then the atomic motor would take over to provide the ship with the long-sustained acceleration required to build up the neccessary velocity.

"You should get to Mars in about two days," Chris announced calmly. "Not bad, is it?"

The astronauts remembered the many long weeks that such voyages used to take when Mars was first visited. The first ever un-manned probe to the planet had taken half a year to reach its destination. They themselves had spent many weeks on their journey to Mars. This was when astronauts underwent hypothermia to eliminate the strains and boredom of a long journey within the confines of a spaceship. They went through a process of freezing which reduced their vital activity to a mere flicker, until just before reaching their destination they were revived and resumed their duties. Whilst they were frozen the astronauts were oblivious to the passage of time, and consumed no food and very little oxygen. Now with the new atomic motor, they could remain conscious during the much shortened journey.

Two days to travel to Mars! Just forty-eight hours to streak along the curved flight path of fifty-five million miles. The main snag was that during the whole duration of the flight they would be under a pressure of two 'g's—that is, twice the pull of gravity at the Earth's surface. However, they had experienced this condition for short periods. Though it was difficult to move about and to carry out their duties—everything weighed twice as much as on Earth—they could manage.

"We had better put on our seat belts," Chris said after a while, and Tony snorted at this irksome regulation. Nevertheless, with the others, he returned to his seat to await the landing. It came with scarcely a bump, and outside he could see the concrete runway streaking by. Soon the plane was taxi-ing towards a cluster of buildings, and then, when the whistle of the jets died away, Tony saw a gangway being pushed towards them.

It was not yet noon in Florida, and when the little party left the air-conditioned cabin the heat struck them almost like a physical blow. They wasted no time in scrambling down the steps and hurrying towards the huge limousine that had come to collect them. A uniformed man, wearing the U.N.E.X.A. flash, had stepped out to meet them. Another, the driver, came out to open the doors.

The greetings were brief, for no one wanted to stay too long in that burning sun. Inside the car they enjoyed air-conditioning again, and when they had settled down on their seats the car pulled away smoothly.

"Wait till the afternoon," grinned the officer who had greeted them. "Then it will be really hot."

The car was speeding along that flat straight road that led from the old Air Force Base to Cape Kennedy.

"We won't be hanging about very long," Tony retorted. "We have some place or other to go to this afternoon."

It was true. They were due to lift off on their long journey at about 3 p.m. local time. As they passed the launching pad they looked with interest at the ship that was to carry them to Mars. Yes, that tell-tale bulge about a third of the way up from the base indicated that it was a deep-space vessel, for it was there that the atomic motor was housed.

"Are we flying the ship ourselves?" Morrey suddenly asked. He'd never thought to pose the question before.

"No," Chris told him. "We're giving you a crew of four to do all the chores. You can take it easy till you get to Mars. Then you have to get to work."

"Who are the crew?" asked Tony.

"Old friends of yours," Chris smiled. "Have a guess."

"Not Campbell, Johnson, Spier and Williams?" Tony asked, his face lighting up.

"The very same," laughed the Deputy Director. "Hope you have no objections."

"Couldn't be better," Morrey declared, and Serge and Tony agreed strongly. For the quartet that Tony had named had been with them on space voyages before, and they were grand fellows to work with.

The car came to a halt beneath a canopy that projected over the entrance to the administration block, so the astronauts were able to avoid the full glare of the Florida sun. They spilled out of the car and hurried indoors.

"Where are our crew?" asked Serge, looking around.

"I expect they are already in the ship, making last-minute tests," Chris guessed.

He led them straight to the medical centre, where a team of doctors waited. The three astronauts had to undergo the routine, but strict, medical check before they could be finally cleared for the flight.

"Gosh!" thought Tony, "it would be terrible if they found something wrong with me that caused me to be grounded." He need not have feared. All three were passed without any reservations, and Tony heaved a sigh of relief.

The medical examination over, Chris took his three friends into the briefing room. Here was displayed a large diagram of Mars City and photographic maps of the surrounding terrain. Morrey looked at the diagram with great interest, for the Martian Base had been much developed since his last visit.

Basically, it was a huge dome made of transparent plastic material. Surrounding this were four much smaller domes which were connected to the central one by tube-like corridors. Within this complex there lived and worked one hundred and ninety-eight men and women. Or rather—one fewer than that number now. It was in the central dome that the main work of the Base was done. The four smaller domes were used for sleeping, recreation, the recycling of oxygen, and algae farming to supplement the imported food supply.

Chris went up to the large photographic map. On it Mars City was plainly depicted, as were the surrounding craters and hillocks. Someone had pinned on to the map a red arrow which pointed to a small crater some two miles from the central dome.

"Is that where the body was found?" asked Morrey quietly.

"Yes, that's the place. As you see, the crater is a very small one. We haven't a photograph of it, but you will be able to identify it easily by these two rocks which are just beyond its rim," Chris replied, indicating the features he had mentioned. From their shadows it would seem that one rock was much larger than the other, and that they were almost touching each other.

"What type of suit was Baines wearing?" asked Serge.

At a sign from Chris a technician who had been hovering in the background wheeled out a frame on which a spacesuit was suspended. It was the latest model, and one that was specially designed for wearing on Mars. Because the planet's gravity is almost one-third of that on Earth the suit had to be a very much lighter one than those worn on the Moon. On the Moon, with gravity exerting only one sixth of its force on Earth, clothing could be very much heavier. A Martian suit, even though it had to be light, must protect its wearer from near vacuum and from intense cold. At the same time it must not be too cumbersome or the wearer would be unable to perform his tasks.

All three astronauts had worn such a suit before, apart from one or two of the more recent modifications to it. If Baines had been wearing one, he'd had all the protection that science and technology could give him from the hostile environment of Mars. Yet all this hadn't saved him from the ill-will of a fellow human being. Or so it seemed.

"Anything else you want to know?" asked Chris, looking at his watch.

Tony almost said, "Yes. Who killed Baines?" but this would have been facetious and out of place at the moment. Still, there was much that the astronauts would have liked to know, but which they must discover for themselves on arrival at Mars City.

"Let's get moving," Morrey said shortly.

The launch pad on which the Mars ferry was waiting was three miles from the administrative block. Because of its huge size the ship seemed much nearer, but the astronauts knew that this was the minimum distance of any pad from the nerve centre of the spaceport. It had been many years since an explosion had occurred at a launching, but U.N.E.X.A. continued this precaution.

Morrey, Serge and Tony were taken to the clothing store and fitted out with the comfortable overalls that spacemen wore during flights. It was no longer necessary for them to wear uncomfortable spacesuits on the voyage. Once lift-off had been achieved they would, subject only to the double gravity, be able to move about and relax as if in a plane.

The journey out to the pad was again in an air-conditioned vehicle. As they sped along the broad concrete road between the admin. block and the waiting ship Morrey allowed himself to speculate on what might happen before they set foot on Earth once more.

They would have to face a cunning killer, for Morrey had little doubt but that Baines's death had been murder. No one who had not spent a spell of duty in a space observatory, or in one of the extra-terrestrial bases, could appreciate the strains that develop over a period. That was why everyone watched everyone else for the first sign of mental stress. This in itself occasionally caused friction, but an early warning that someone was starting to get irritable had probably prevented many a flare-up.

He wondered if in spite of these precautions a row had developed between Baines and another person on the Base. One of the things they would have to go into when they reached Mars City would be the relationship between the dead man and all those with whom he worked.

The vehicle jerked to a halt alongside the launching pad, which consisted of a great concrete platform on which the ferry stood. Below the rocket motor, within the platform, was a huge pit. This was filled with water constantly circulating from the nearby creek. Into this pit would be directed the white-hot flame of the rocket motor, turning the water into vast clouds of steam. Only by such a cooling arrangement could the concrete platform be saved from exploding under the intense heat.

Alongside the ferry was the tall steel service gantry. The whole of this structure would move away along rails a few minutes before the chemical motors were ignited. But meanwhile men were still working on the ship, making last-minute checks. Even as the three astronauts, with Chris, climbed out of their vehicle a number of hatches in the side of the ferry were being closed. Now only one remained open. Opposite the ninth gangway, the highest on the gantry, was the entrance through which the astronauts would enter their cabin.

Just as they looked at the cabin entrance a head appeared and its owner waved. Then three more people peered out. It was their crew waving a welcome to them. The astronauts waved back and then stepped forward to the base of the gantry, where the lift was waiting to whisk them up to the highest level.

Chris squeezed into the lift with his friends, the door closed and they shot upwards. As they looked out they watched the ground fall away below them. Tony wondered how long it would be before they set foot on terra firma again.

The lift shuddered to a halt and the door clanged open. They stepped out eagerly on to the top platform. Four men, grinning widely, had come out of the cabin and were waiting to pump the hands of the three astronauts. The welcoming ceremony over, Chris gently urged the seven others into the cabin.

"You really ought to be your way," he chided mildly.

So the three astronauts, and their crew of four, took a last look out of the hatch at the world they knew and loved. Then a technician stepped forward and firmly shut the door. Catches were fastened and the cabin sealed.

The Mars ferry was ready to depart.

3

To spend two days weighing twice as much as normal is somewhat of an ordeal. Every movement takes a great deal of effort, and relatively minor activities are exhausting. Eating is a tiring process when one's arms feel as heavy as lead and food seems the weight of iron. But human beings are wonderfully adaptable creatures—they would not have evolved so far had it not been so.

The seven astronauts soon learned to live with the double gravity of the ship, and after a time they thought little about it. Initially speech was a trifle slower, but this was not noticeable after a few hours.

Morrey, Serge and Tony were having a very easy time. Not for them the chores and responsibilities of piloting the spacecraft. No calculations, vigils, spells of duty nor official reports to transmit. Instead they could enjoy the luxury of a lazy two days, having full confidence in the crew that had been sent with them.

They used much of their time in speculating about the task which they had been set, discussing it from all angles and debating many different possibilities.

"We must be careful about adopting any particular theory," warned Morrey, "for that could colour our observations. Let us treat all theories as equally possible and let the facts we discover prove which of them, if any, is the right one."

"We ought to have brought a lie-detector," Tony observed. "Then all we should have to do would be to test everyone on the base to discover the murderer."

"I doubt whether it would be as easy as that," Morrey replied. "Such instruments are not inflallible, and the results are not acceptable in a court of law. I'm afraid we must depend on our own observations and not on any piece of equipment to do the job for us."

"It was only a suggestion," grumbled Tony. "I could probably have built a detector in a few days."

"No doubt you could," Morrey smiled, "but just devote your talents to more orthodox methods of detection."

"How can we be orthodox in such an unorthodox situation?"

The argument would have gone on, but Serge chipped in.

"What do we know about the Commander? Morrison, isn't it? Have any of you met him?"

"I have," replied Morrey. "He's a Scot, which you can tell a mile off from his accent. When you first meet him he seems a formidable character, but I soon found out that his bark is worse than his bite. Stand up to him if you think you are right, and he'll respect you all the more for it."

"Can he be trusted? Is he likely to be a suspect?" asked Serge.

They all remembered the previous case they had been called upon to solve. A number of men had disappeared mysteriously from Lunar City, the big settlement on the Moon. After great difficulty and much danger they had solved the problem. In the end they had found that the Base Commander, named Cooper, was himself involved.

"We'd better trust no one," Morrey suggested, "except ourselves. Oh—and Bob, Mervyn, Norman and Colin," he added, referring to their crew.

"I'll be glad when we get there so that we can make a start," declared Tony.

When they were approximately half-way along the flight path the ship was turned so that the steady thrust of the atomic motor decelerated the spaceship. The three astronauts and the crew felt no change in the stresses upon them, but they knew that Mars was now under their feet and that they were falling towards it.

"We're locked on to the beam," Norman Spier announced after they had been on deceleration for about six hours.

He meant that the ship had completed the curving part of its flight path and was now in the navigation beam radiated from Mars City. The ship would fly down the beam automatically, so the crew would have very little work to do. Apart from routine inspection of the ship and its all-important motors, Spier, Williams, Campbell and Johnson could join their three friends for a really good chat.

After the usual jokes and banter, the four crewmen broached the subject they hadn't had time to mention before.

"How can we help?" asked Bob Campbell. "We can't just sit in Mars City twiddling our thumbs while you three do all the work and take all the risks."

"That's what we're being sent for," Morrey reminded him. If there was any danger—and who could say there would not be?—then it was the duty of the three astronauts to face it without involving their crew.

"But surely there's some way we can help?" Mervyn Williams protested. "If it's only to keep an eye on you three to see that no one slits your suits."

"Yes, you could do that," Morrey agreed, "and you could also keep your eyes and ears open for anything suspicious. Colin, you'll have to send all our reports back to the Cape via our ship's radio. I'll not be using the ordinary link."

The long-haired Colin Johnson nodded. If even the Base Commander himself wasn't to be free from suspicion then it would indeed be best to use the spaceship's transmitter. It would be easy to pass all messages through the scrambler so that they would be unintelligible to an eavesdropper.

The planet was now looming large in the observation windows—almost filling them. Minute by minute it grew, for though they had been decelerating for some time, their velocity was still fantastically high compared with that of normal space voyages. The four crewmen were preparing to take over manual control when the ship was a little nearer. An hour later the change was made.

Tony had again struggled to one of the observation windows and was peering intently at their destination. He'd been to Mars before, but not since the base called Mars City had been developed. When he and his companions had first landed on the Red Planet they had found signs of life. He well remembered the strange slabs of stone they had discovered and the markings on them. He also recalled the mysterious intelligences that haunted the dying world. When Mars City was established it had been hoped to re-establish contact, but so far there had been no success.

"I can see it," Tony called out suddenly. He had caught a glint of light reflected from the great dome that covered the centre of Mars City. Morrey and Serge joined him for their first glimpse of the place which housed a killer whom they must track down. What would that person be like, they wondered. What went on in the mind of a man or woman who could kill a fellow human so skilfully?

"It's great having all the work done for you," Tony grinned some time later. The ship was on its final approach to Mars, and all Morrey, Serge and Tony had to do was to lie back on their contour couches while the crew manoeuvred the vessel towards the landing pad.

The radio was crackling away as Colin Johnson exchanged lighthearted greetings with the Mars City operator. The backchat was interrupted by the Scots accent of Commander Morrison, wishing them a smooth touchdown and welcoming them to the Base. Morrey replied suitably, but made no reference to the reason for their coming. They would talk to the Commander in the privacy of his office after their arrival.

The touchdown was as smooth as anyone could wish. Their contact with the landing pad came with scarcely a bump, so accurately had the crew judged the ship's height and velocity. As they settled, the four crewmen grinned at their passengers, as much as to say "you couldn't have done it better." Morrey's wave was an acknowledgement of their navigational skill.

Both passengers and crew spent the regulation "waiting time" putting on their suits, ready to join the vehicle that would come and collect them. As soon as the required thirty minutes had passed, during which the pad would have cooled from their landing, the transporter would come along and attach itself to the ship. Once the joint was made they would be able to open the hatch and climb out into the pressurized vehicle. This would then be closed ready for the drive to Mars City.

All seven were in their suits some minutes before the compulsory hold-up was over. It was a very strict rule that all personnel must wear pressure suits as a precaution when transferring from the ship to the transporter. Otherwise a faulty joint or seal would prove fatal. They awaited the signal from outside with some impatience.

It came at last. The buzzer and the flashing lights announced that the transporter had attached itself to their hatch and that the joint was airtight. The crew stood aside politely for the passengers to precede them. Morrey swung open the hatch and was greeted by two pressure-suited figures inside the transporter. He clambered through the hatch and was quickly followed by the others. When they were all safely inside one of the men from the base closed the hatch of the spaceship, then that of the transporter, and they were free to pull away.

The vehicle they were in was like a large van. They knew it was hermetically sealed and heated to protect them from the near-vacuum and freezing cold of the Martian surface. It moved along smoothly on caterpillar tracks towards Mars City, three miles away. During the journey Morrey tried to engage the two orderlies and the driver from the Base in conversation, but though polite they were uncommunicative.

These three rather reserved men from Mars were among the one hundred and ninety-seven suspects. Could one of them be the criminal? Tony found himself glaring at the two orderlies and at the back of the transporter driver as if he already knew that one of them had committed the crime.

The transporter trundled into the airlock of the huge central dome. Through the portholes the passengers could see spacesuited technicians close the outer entrance behind them and then release the valve that would let air from Mars City fill the lock. When a dial showed that there was sufficient pressure the inner doors were opened and the vehicle lurched forward. They were now well and truly inside the Martian Base.

Tony could hardly wait for the hatch of the transporter to open. When it did he was the first down the steps. He stood looking around this first human outpost on another planet.

The central dome was a vast structure. It was made of a double layer of semi-transparent plastic material and was supported by internal air pressure. Between the two layers of the dome there was a substance that would instantly seal small holes caused by micrometeorites. Large meteors were a different hazard, but they were so rare that they could be neglected almost entirely.

At the moment Mars City was in daylight, but the Sun's radiation was weaker than that received by Earth. Both light and heat were less than that enjoyed by earthbound humans. A special environment had to be created on this chilly world so that men and women could live and work. The sunlight was augmented by numerous fluorescent panels, so that the whole city was bathed in a warm and gentle light.

A newcomer to Mars would have noticed the weakness of the gravity compared to that of Earth. Though Mars is little different in size from Earth, its mass is much less, and consequently its pull is smaller. On Mars things weigh little more than one third of what they would on Earth, so all muscular actions have to be adjusted accordingly. The style of walking on Mars would look rather peculiar to people who had never left Earth, for the long, loping strides would be impossible under terrestrial gravity except by the expenditure of tremendous energy.

As the astronauts and their crew stepped down from the transporter, a man who, from his insignia of rank, was obviously the Commander himself, stepped forward to greet them.

"Welcome to Mars City," he said as he held out his hand. The accent confirmed that this was indeed Commander Morrison. Several other officers were also there to greet the new arrivals, including an attractive dark-skinned girl. The flash on her sleeve proclaimed her a radio officer.

"Have you had a good journey?" the Commander asked politely. "You've certainly not wasted much time on it."

Morrey grinned. This was undoubtedly the fastest journey that had ever been made to the Red Planet, and the speed of their coming had obviously surprised the Commander.

"No, we didn't hang about," Morrey agreed. "It wasn't too uncomfortable, but not like the leisurely trips of days gone by. But then you can't have high acceleration and comfort, so we managed as best we could. It wasn't too bad, really, once we'd got used to the two 'g's."

"I've reserved three single cabins for you in Dome One," Commander Morrison went on, "and there are two double cabins in Dome Three for your crew. You'll find them fairly comfortable."

Morrey pursed his lips.

"Isn't it possible to have our crew's cabins next to ours?" he asked. "I'd prefer it."

The Commander hesitated.

"It will be a little difficult," he replied. "It will mean some moving around."

"Well, fix it, please," Morrey said briskly. "I hope we shall not be here too long. Whoever has to move should be able to return quite soon."

Tony noticed a few scowls among the officers in the reception party. Perhaps they were the ones who would have to move. Still—he guessed Morrey's reason for wanting all the party from Earth to be together. They were the only ones who could not possibly have killed William Baines.

There were a few formalities to go through. All seven had to have a medical examination to see whether they were free from terrestrial infections. The precaution was necessary, for an epidemic could be deadly under Martian conditions. If any of the new arrivals had even been suspected of carrying some types of virus with them, they would have to have gone into quarantine for a long period. Fortunately this wasn't needed. Morrey breathed a sigh of relief when he and his companions were all given a clean bill of health.

This done, one of the officers was deputed to show them to their quarters, and Commander Morrison asked them to come to his office later.

It was inside the central dome of Mars City that the work of the Base was performed. Scores of men, and a few women, were busy within the small laboratories into which it had been divided. Serge would have liked to linger to ask questions about their work, but there would be time for that later. Morrey nudged his friend forward and the little party followed their guide.

4

Dome One was a dormitory dome. Over a hundred people slept inside it, some in single cabins, but most in cabins for two or four people. The remainder of the personnel, including about a score of women, used Dome Three, the other dormitory area, for their quarters. This was diagonally opposite Dome One, on the other side of the large central structure. Morrey was glad that he had insisted on Robert, Mervyn, Colin and Norman being accommodated in Dome One. In Dome Three they would have been some distance away.

Each of the four outer domes was connected to the main one by a tube-like corridor about fifty yards long, so that they looked like satellites attached to the large central body. There was no communication between the smaller domes except through the main "building".

The seven single cabins were next to each other, and in four of them there were signs of hasty departure. Commander Morrison must have ordered whoever occupied them to vacate their rooms in double-quick time.

"That won't make us very popular with some people," Morrey said to himself. Still—they were not here to seek popularity, but to find out what had happened to William Baines.

Though small, the cabins were comfortable enough. A single bed, an easy chair, a bedside table and a locker to store clothes were all that anyone needed. Bathrooms and toilets were outside—one to each four cabins. Tony flung himself on the bed of the first cabin they came to.

"Not bad," he said approvingly, for the bed was very comfortable. "Can I have this one?"

"They're all the same," Lieutenant Dickson, their guide, told them.

"If you wish," Morrey replied to Tony, "and then Serge and I will have the next two. You fellows don't mind being at the end of the row, do you?" he asked the crew.

Norman Spier was about to say that they didn't mind so long as they were close enough to keep an eye on the three detective-astronauts, but Lieutenant Dickson was there, so he amended his answer.

"We don't mind so long as the beds are comfortable," was all that he said.

So the seven newcomers from Earth settled into their cabins, packing away any personal belongings into the lockers provided. That done, on Tony's insistence they asked the Lieutenant to take them to the canteen.

"We might just as well find out where it is," the mechanic explained innocently.

"You wouldn't be wanting anything to eat, would you now?" Mervyn asked.

"Oh well, it wouldn't be a bad idea to see what the food is like, now you mention it," Tony said ingenuously.

Lieutenant Dickson smiled and asked them to follow him. They were led back along the tube into the main dome, then out along a similar tube to Dome Two. Here were recreation rooms, the gymnasium and a cinema, together with the canteen and kitchens.

"This table has been reserved for you permanently," the Lieutenant explained, "and because we have shifts on duty at all times, there is a service all round the clock."

"So you should never be hungry," Colin Johnson teased Tony. "Just think—you can eat day and night if you want to."

"He hasn't come here to spend his time eating," Morrey reminded them all a little stiffly. Sometimes Tony's voracious appetite could be trying. Their guide excused himself and they seated themselves at the table. An orderly came at once to learn their requirements.

It was no use ordering steak and chips in Mars City. Nor could the diners indulge in many of the foods that they were used to on Earth. Almost seventy-five per cent of the food eaten by the Base staff was produced on the planet; only twenty-five per cent was ferried in from distant Earth. Even so, the food was much more appetising than it used to be. Though they knew that most of what they were eating consisted of algae grown in the tanks of Dome Four, they made a satisfying meal. Even when Tony drank his coffee he enjoyed it. He had long since given up speculating how many times the re-cycled water had been through a human body before.

The meal finished, Morrey invited Serge and Tony to join him in his cabin. Meanwhile the other four could linger on in the canteen or wander round the Base, he told them. But a few seconds after Morrey and his two companions left, Colin Johnson rose from the table and sauntered off in the same direction.

"We're going to watch those three like a mother watches her baby," Robert Campbell muttered. Sure enough, Colin could be seen lounging about in the corridor outside while the three astronauts were having their conference in Morrey's cabin.

"This is what I thought we would do," Morrey began. "Speak out if you have other ideas."

He proposed that they should first inspect Baines's suit minutely. All three were familiar with the type, and if one of them was the same size as the unfortunate man, he would put it on for the benefit of his companions. They would pay particular attention to the fatal slits, and they would try to picture what might have caused them. They would also ask the Commander how the suits were stored and how they were issued.

Then they would go out to the spot where Baines's body had been found and examine the whole area minutely, in case Commander Morrison's men had missed anything. Even a very small detail might be a vital clue. It would be too much to expect that they might find the instrument with which the slits had been made. The general opinion was, or seemed to be, that the suit had been tampered with before Baines put it on. But Morrey was determined to exclude nothing. It might just be possible that someone had crept up to the victim and punctured his suit while he was out on the Martian surface.

After that would come the longest and most tedious part of their investigation. They must question every single person on the Martian Base and then they must check and cross-check every statement. If a murder had been committed on Mars, then one of the men and women they would interview must be the killer. Would they be able to find which one it was?

Neither Serge or Tony had anything better to suggest. It seemed the logical way of going about the enquiry. Tony did wonder whether they should split up to do their tasks, but Morrey insisted that they should all three be together all the time.

"With three of us there's less likelihood of something vital being missed," he explained.

"When do we start?" Tony asked.

"Why not now?" Morrey grinned. "That is, unless you'd rather go back to the canteen?"

"I'll manage for another hour or so," Tony sighed. So they rose to begin their task.

"Hello! What are you doing here?" Morrey demanded when he saw Colin lounging in the corridor.

The three astronauts knew perfectly well that their four crewmen were going to guard them constantly, but they felt that it might become irritating to see one of them popping up wherever they went. Yet Morrey himself had appreciated the need for security, for had he not insisted that all their cabins should be together?

"Oh-er-just keeping an eye on things," Colin answered with a self-conscious grin.

"Hope you find it interesting, "Morrey replied rather shortly. Then he turned and loped off, followed by Tony and Serge.

Commander Morrison was expecting them.

"I guessed you'd be along as soon as you'd had something to eat," he declared, motioning them to chairs. "I hope you enjoyed your meal. Now, have you decided how you are going to conduct your investigation?"

"We have been discussing it," Morrey admitted, "and the first thing we want to do is to examine the suit worn by Baines."

"Come with me," Commander Morrison said, rising from his desk. "I've had it kept under lock and key."

The astronauts followed the Commander from his office and along a short corridor until they reached a closed door. Glancing back, Tony thought he caught sight of Robert Campbell, but he said nothing to the others. Commander Morrison took a key from his pocket, unlocked the door and threw it open.

"There it is," he announced, stepping on one side for the astronauts to enter. Tony, ever eager, led the way.

The spacesuit worn by the murdered man stood in the centre of the small room. It was supported by a stand to keep it in position, and for a moment it looked as if there were someone inside. But a closer look showed the empty helmet and limp arms. They all went up to it curiously. It was exactly like the one they had inspected on Earth. But this was the real thing. This was the suit that had the slits. This was the suit in which Baines had died.

They all looked at it for a long time before anyone touched it. Tony was the first to fall on his knees and to run his fingers over the material of the suit. He was looking for the five slits that had cost William Baines his life.

It took some time to find them. Commander Morrison watched silently. He preferred to let the astronauts discover the slits for themselves. Then they would see how cunningly the murderer had concealed them.

"Ah! Here's one!" Tony called out.

He'd found the first of the slits in the left-arm joint of the suit. Because the suit was made of several layers, it was important to discover just how deeply the cut had penetrated. It would not be necessary for it to pierce all the way through, for one layer of the suit was, basically, a balloon, or rather a number of separate balloons. This was the layer that was under pressure and maintained support for the wearer's body whilst he was out in the near-vacuum of Mars. There was a balloon round each arm and one round each leg, and a separate one encased the body.

These so-called balloons were supported by flexible steel wires which held them in check when they were inflated under pressure. Because of this balloon layer the suit had to have specially designed joints, for otherwise the gas pressure would have prevented them from bending. Thus a bellows-like joint had been developed, and this, when bent, maintained a nearly constant volume as it expanded on one side and contracted on the other.

It was in one of the folds of the "bellows" that Tony discovered the first slit.

The next three were easy to find, for they were situated in the other arm joint and in the two leg joints behind the knees. The fifth slit was more difficult to locate, but was eventually discovered in the right groin of the suit.

"Neat jobs," Commander Morrison commented grimly, for the slits had been almost invisible. Certainly they wouldn't have been noticed by the victim.

The outer layer of the spacesuit was of plastic-coated glass fibre, extremely strong and tough. Beneath this, for insulation purposes, were several layers of thin plastic alternating with glass fibre cloth. Then came the balloon, or bladder, which maintained the pressure on the wearer's body. Finally there was the cooling layer, which contained a large number of thin tubes. Through these water circulated to carry away the body heat, which would otherwise become intolerable.

Each of the astronauts examined the slits carefully. Then they opened up the suit to look at it from the inside.

"I see only one cut has penetrated right through," Morrey observed to the Commander.

"Yes, that in the right groin," Morrison agreed. "The other four stop at the bladder."

"So those in the bends of the arms and knees would effectively deflate the arm and leg bladders, whilst the one in the groin punctured the body bladder and would also allow oxygen to escape from the suit," Serge said thoughtfully. "Now I wonder why all five slits were not cut right through?"

"I can tell you that," Tony replied promptly. "The cooling tubes are rather close in the bends of the elbow and knees. It would be difficult to penetrate right through at those points. The cooling tubes in the groins are much further apart, so it would be easy to avoid them."

"Then that shows that whoever cut them must know a great deal about the construction of the suits," Morrey declared. "I wonder how much that narrows the field for us."

"Not very much, I'm afraid," Commander Morrison answered. "Most of the Base personnel know a fair bit about suits. They have to, for their lives often depend on them."

"Yes, but do they know about the detailed construction?" Morrey persisted. "I must confess that I'd forgotten about the dispersal of the cooling tubes until Tony mentioned it."

"We have suit technicians, of course," the Commander said. "It's their job to maintain all suits in good condition. They are the only people who know all there is to know about spacesuits. Others know a little about them—sufficient to make emergency repairs and to report faults."

"But does the general knowledge include the distribution of the water tubes in the cooling layers?"

"Probably not. But if anyone wished to get it, the information wouldn't be hard to come by," Morrison observed.

"If a water tube had been cut it would reveal the slit at once, wouldn't it?" Serge asked.

"It certainly would," Tony assured him. "The water is pumped round the cooling layer by the little pump in the life pack, as you know. If just one of the tubes was cut water would seep through the slit. It would become obvious at once, either on the inside or on the outside of the suit."

"The murderer knew what he—or she—was doing," Morrey said. "He—or she—must have known a great deal about the construction of the suits. So that's something we'll have to investigate. Who, in addition to the technicians, has sufficient knowledge?"

The astronauts were silent for a time. The technicians must be suspect, of course. But if the murderer wasn't a technician how could he be made to reveal that he had the know-how to have cut the slits in just the right places?

"Any idea what they were cut with?" Morrey asked.

"No. We've had them under the microscope, of course," the Commander replied, "but we found nothing to reveal what type of instrument was used."

"What are they—about half an inch long?" Serge asked. "Then we shall have to seek something very sharp, very thin, and about that width."

"How many instruments have you that would fit?" asked Morrey.

"Not too many," the Commander replied thoughtfully. "I'll have to give the matter some thought. I suppose you'd like a list?"

"Yes, please. As soon as you can," Morrey said briskly. "Now can I have a look myself at these slits through your microscope?"

The Commander flushed, and there was a moment's pause before he agreed to make the arrangements Morrey required.

As if he'd read Morrison's thoughts Morrey turned to him with a wintry smile.

"You see, we have to look at everything for ourselves," he explained. "As you know, 'hearsay' isn't evidence in a court of law."

The Commander shrugged.

5

Until they could examine the spacesuit under the microscope there was little else that the astronauts could do with it. There was, however, much more that Morrey wanted to know.

"Tell me," he said as they made their way back to the Commander's office. "Just how are the suits stored, maintained and issued?"

"There are a small number of suits stored in each of the outer domes," Commander Morrison explained, "but these are used for emergencies only. The main stores are here in the central dome. There are eight technicians who maintain and issue them. As you know, each suit is individually tailored, so we each have our own personal suit."

"So it wouldn't be difficult to pick out Baines's suit? I didn't see his name on it. Where was it?" Morrey interrupted.

By now they had reached the Commander's office and at his gesture they all seated themselves.

"The suits don't carry a name, but a number," the Commander explained. "There is a little metal strip, which carries this, let into the right shoulder. Each person here is allocated his or her own number. For example, my own is number 471. I don't know whether you noticed, but that of Baines was—"

"842," interrupted Tony.

"I see you don't miss much," the Commander conceded with a faint smile.

"But why such high numbers? Are there not only one hundred and ninety-eight people in the Base?" asked Serge.

"That's true. But every newcomer brings a new suit with a new number, and everyone finishing a tour of duty takes his suit back to Earth."

"Tell us, Commander, how many people know whom the suits belong to? How many people have a list of the Base personnel and their suit numbers?" Serge enquired.

"What you want to know is how many people could possibly have known that suit number 842 belonged to William Baines," Morrison said. "Well, the technicians have a list, obviously. When one of our staff is required to go outside, the suit stores is advised and that person's own suit is prepared. I, too, have a list—and that's the lot."

"But it wouldn't be difficult to find out Baines's number. The list isn't secret, is it?" Tony asked.

"No, of course not. Why should it be? Until this happened can you imagine why anyone should be interested in someone else's suit number?" the Commander said a little testily.

Again there was a silence while the others turned over the Commander's information in their minds. Morrison himself waited impatiently for their next question. It was Serge who spoke first.

"Is there a record kept of anyone who has access to the suits?"

"Of course. That is, there's a careful record kept of every suit issued, when it is returned, and a report on the thorough examination it gets each time after use."

"I didn't mean that," Serge persisted. "What I meant was—is there a record kept of anyone, beside the technicians, who has access to the suits without actually going outside?"

"No. The position has never arisen. Why should anyone but a technician, and the wearer, be interested in one of the suits?"

"Well, someone was in this case," Serge observed.

The Commander flushed, but before he could make an angry reply Morrey hastened to pour oil on troubled waters.

"We're not suggesting at all that there's been neglect by anyone," he said quickly. "No one could foresee what has happened. My colleagues and I merely want to be fully in the picture and to learn all about your procedure."

The Commander's flush faded a shade.

"Obviously there will have to be new procedures after this," he contented himself with saying.

"But is there any way of finding out who could have got at Baines's suit?" Morrey asked mildly. "If we could discover that we should be a long way towards solving our problem."

The Commander thought carefully.

"As I've said, there's been no need to keep such a record in the past," he said. "But why not question the technicians? One of them may remember someone going to Baines's suit."

"But wouldn't he have reported the matter after the murder had been discovered and the slits found?" Tony asked quickly.

"One would have thought so," the Commander agreed, "but perhaps he doesn't want to cast suspicion—probably unjustified suspicion—on a friend. That's up to you to discover."

"We will," Morrey said quietly. "Never fear. We will."

"Is there anything else I can tell you?" the Commander asked, "or can I get on with some of my routine tasks?"

"Thanks, sir. That will be all for now. You've been a great help," Morrey replied smoothly, "but you won't forget that list of possible instruments when you have a moment, will you?"

Morrison promised that he wouldn't, and the three took their leave.

"What now?" asked Tony as they paused outside the Base Commander's office.

"The technicians, of course," Morrey said without hesitation. "One of them may be the person we are looking for—or at least may help us to find who is."

It made sound sense. Obviously the eight technicians who looked after all the suits in the Base must be their next objective.

"I've a rough idea where the main store is," Tony volunteered. "Follow me."

It wasn't far. No place was far in the Martian Base. By Earth standards the City was tiny compared with settlements on the home planet. Yet it represented vast labour, untold courage, magnificent skill, and a fierce determination to push forward Man's frontiers of knowledge. And who could say what infinitely vaster cities would follow when the ever-curious human race had gained sufficient knowledge and had perfected the necessary techniques?

The door to the suit stores was open as the trio approached it, and Morrey frowned. Was there no control over who had access to the suits?

Page and Frobisher, the two technicians on duty, were evidently expecting their visitors. Page, a tall lean man, hurried forward to introduce himself and then his companion. Morrey and the others needed no introduction, for everyone in Mars City knew all about their presence and the task they had come to perform. Greetings over, the astronauts looked curiously round the main suit stores.

It was a large room as rooms went on the Martian Base, sixty feet long by thirty feet wide. The walls consisted of nothing but numbered lockers, each presumably containing someone's suit. The lockers were seven feet high and this was the effective height of the walls. Above stretched the central dome, bathed in its perpetual light.

In the centre of the stores was the working area, with a bench, suit stands, and numerous other pieces of equipment. One suit, its parts strewn over the bench, was obviously being serviced.

"Shall we begin by having a look at the lockers?" Morrey asked briskly. "Particularly the one that held Baines's suit."

"It's over here," Page said, indicating a position almost at the far end of the right-hand wall. As they walked in the direction indicated the astronauts' eyes were busy taking in their surroundings. The metal lockers each had a number stencilled on the door, presumably that of the suit it contained. The numbers seemed without order or sequence, and Tony asked about this.

"It's impossible to keep the lockers in strict numerical order," Page explained, "because of the constant change in personnel. Each newcomer has a new number allocated to him or her, and that number is stencilled on the door of a locker left vacant by someone who has returned to Earth after completing a tour of duty."

"How do people know where to find their lockers?" asked Tony.

"Oh, you soon learn where your particular suit is stored," Frobisher explained. "Of course everyone has the same locker throughout his spell in Mars City."

They stopped in front of a locker that bore the number 842. It had been that of William Baines. In this metal compartment had stood the suit in which he had died. It was now empty, for they had seen the suit a few moments before in the small room where it was securely locked.

Page took the handle and opened the door for the astronauts to see.

Tony almost started forward to stop him, for he'd had a sudden thought that the handle and the locker door ought to be examined for fingerprints. Surely the murderer had left some sign when he went to the locker to damage Baines's suit. Tony had had a sudden vision of finding a strange, unidentified print that would lead them straight to the criminal. However, the technician had effectively obliterated any print that might have been there before.

"Has the locker been checked for fingerprints?" Tony asked, and the reply was as he'd expected.

"Why, no," Page replied. "No one thought to do that."

"But, surely, when it was known that Baines had been murdered it was an elementary thing to have done?" Tony snapped. "Yet you've just touched the handle."

Page and Frobisher looked at each other uncomfortably.

"No one told us not to touch it," the latter explained. "No one thought about checking for prints."

"Is there no security here?" Tony asked in disgust. "Wide open doors and no attempt to see who might have got at Baines's suit."

Morrey understood exactly how his friend felt. Their task was going to be made immeasurably more difficult because no one had ever expected a murder to be committed, so security seemed completely absent. No one had ever thought it necessary to lock the door to the suit stores, or keep a record of who entered the room. It was, he conceded, easy to be wise after the event.

"We'll talk to the Commander about all this later," he said.

"Now let us look inside the locker."

Apart from the stand which would have supported the suit, the locker was completely bare. Even the closest scrutiny revealed nothing that might help. Tony went on to his knees and peered at every square centimetre, but without avail. The astronauts decided they were going to get no assistance here.

"Whose are the lockers on either side?" asked Serge. He'd been studying them silently.

"The one on the left, number 749, is Percy Roberts's," Frobisher replied. "Whose is number 800, Paul?"

"Doctor Powell's," Page answered instantly.

"What do these men do?" enquired Serge.

"Percy Roberts maintains the algae tanks. We call him the Plumber," Frobisher answered. "The other one isn't a man. The locker belongs to Hilary Powell. She's a psychologist."

"Have they used their suits lately?"

Page shook his head.

"I wouldn't think so. Neither needs to go outside for their jobs," he explained, "though all of us take a stroll occasionally."

Morrey understood this. An occasional excursion out on to the Martian surface would be a valuable antidote to the claustrophobia which some people might experience in the Base.

"Neither Roberts nor Miss Powell went out on the day Bill Baines was killed," Frobisher assured them.

"How do you know? You're not on duty all the time," Tony said.

"That's true. But all excursions are recorded, because we note all issues of suits," Page told them. "This is the record."

He led them over to the central work bench and opened one of its drawers. A book like a ledger was inside. He took it out and offered it to Morrey.

The astronaut opened it and found that the front part had a note of all suit issues that had been made during the last few months. Then he saw with interest that Baines's name and his suit number were recorded on the day when the electronics expert made his last fateful journey. But though the time of issue was noted in the appropriate column the "returned" column was blank. Unlike all the other issues, suit number 842 had never returned to the stores.

A careful glance over a few pages showed that certain personnel, whose jobs took them outside, were issued with their suits frequently. Other names appeared perhaps only once every week or ten days. Roberts hadn't used his suit for more than eight days before Baines's death, but Dr. Powell had taken hers out just the day before. She must have made only a short excursion outside Mars City, for her suit had been booked back in again after ninety minutes.

The second part of the ledger was devoted to the suits themselves. Each one had a page on which was recorded its history—whenever it was issued and returned, when it was serviced, and what repairs, if any, had been done to it. They turned to the record of Suit 842.

William Baines's name was at the head of the page as the wearer. The suit had been worn nineteen times since he had first arrived at the Base. It seemed that the only attention it had needed was a new radio to replace the original, which had developed a fault. There was no record of any repairs being made to the fabric.

There seemed little more to be learned from the log book, so Morrey turned his attention to the work bench, its tools and instruments.

"I want you to turn out your drawers and place all your tools on top of the bench," he said.

"Wait a minute," Tony interrupted, determined to get his prints. "If the instrument which made the slits is among them, wouldn't it be better to check it for fingerprints before anyone touches it? We ought to check every tool capable of making the cuts in the suit."

"You're right, of course," Morrey conceded. Turning to the two technicians, he said, "I don't want any of these tools touched until they've been gone over."

The two men looked at him in dismay.

"But we're using them all the time," Page protested. "We won't be able to do our jobs without them."

"We've six suits to service," Frobisher added.

"Then they'll just have to wait," Morrey said firmly. "I'm afraid I'll have to put a guard on them until the job is done. Call in a couple of our crew, Tony."

"You don't trust us," Page spluttered, his face flushing.

"We can't trust anyone," Morrey answered grimly.

6

Tony guessed he wouldn't have to go far before meeting at least one of their crew. He was right, for just outside the door to the stores Campbell and Williams were having one of their perpetual arguments.

"Sorry to interrupt," Tony grinned, "but we have a job for you. Morrey wants you to come and guard the tools until we've had them all checked for fingerprints."

The argument stopped instantly. After all, it had merely been a pleasant way of passing the time away while they kept close to the astronauts. A job—any job—would make them feel they were being of use.

"Lead on," Robert Campbell said with a mock salute, and Tony led the two crewmen into the suit stores.

"Let no one—but no one—touch any of these tools until they've been checked," Morrey ordered, indicating the workbench and the contents of its drawers.

Page, red-faced, stood with folded arms and looked at Mervyn and Robert with some hostility.

"You've got the Commander's 'O.K.' for this?" he demanded.

"I don't need it," Morrey answered evenly. "But rest assured, I'll put you right with him."

Page gave an elaborate shrug of the shoulders and asked how long they would be hindered from doing their jobs.

"Oh, not for more than a couple of hours," Morrey said. "it doesn't take long to get prints these days."

Leaving the two crewmen to keep watch over the tools he led his companions back to their quarters.

"I don't expect much from this," he told Tony and Serge as they reached their cabins. "Those tools seem to be in constant use by all the technicians."

"But by the technicians only—or should be," Tony put in. "If we should find the print of a non-technician there will be some explaining to do."

They took out from one of the lockers the special camera they had brought with them. It took exposures at different light wavelengths and entirely eliminated the slow, tedious methods of the past. Provided every part of the tool was photographed, the camera would faithfully reveal the prints of everyone who had touched it. The film could be treated rapidly and enlarged positives obtained of any desired exposure.

"The Commander will have prints of all Base personnel in his records, will he not?" asked Serge.

"Probably, but we'll print them all again with this camera," Morrey answered. "Then we'll be comparing like with like."

So they returned to the suit stores and began their task. All the tools and instruments were carefully photographed from different angles, particular attention being paid to any that seemed capable of cutting the fateful slits. Robert and Mervyn were glad to help, and even Page and Frobisher became interested in the process. At last the job was done.

"All right, fellows," Morrey said to the technicians, "they're all yours. You can carry on with your jobs."

There were several implements which might have made the slits. One of them particularly caught the attention of the investigators. It was a short, sharp blade, almost like a surgeon's scalpel.

"What do you use this for?" asked Tony.

"We use it when patching a suit," Frobisher told him. "Sometimes the outer layer gets torn or frayed, and we cut it out to replace the damaged part by a new piece."

"Have you used this knife lately?" asked Morrey. He waited tensely for the answer.

"We haven't," Page answered at once, "but some of our other fellows may have done. All the jobs are entered in the log book."

"Oh yes. We'll take that with us if we may. You can make your notes on paper and enter them up later, can't you?" Morrey asked. "We won't keep it longer than necessary."

Then he gave instructions for Mervyn Williams to take the camera, find Norman Spier, and process the film as speedily as possible. Meanwhile Robert Campbell, with Colin Johnson's aid, was to sift through the log book to see if the technicians had done any patching up jobs recently. They must pay particular attention to the period between Baines's last excursion and his previous one, for it was during this time that the slits must have been made.

Campbell and Williams went off happily. They knew their companions would be equally delighted at being given a useful job to do. It was much better than lounging about being the self-appointed watchdogs over the three astronauts who were doing all the work.

"Now then," Morrey said, turning to the two technicians when the crewmen had left, "you understand that, whilst anyone in Mars City could have killed Baines, you technicians had more skill and more opportunity than anyone else?"

"I suppose so," Page replied slowly. "So what you want us to do is to clear ourselves—to prove to you that we didn't kill him."

"That sums it up nicely," Morrey agreed. "Now, how do you propose to go about it?"

"Bill was a friend of ours," Frobisher said simply. "That's the best proof we can give you. Anyone in the base will confirm it. Paul, here, was particularly close to him. You don't kill your best friend, do you?"

"It has been known," answered Morrey evenly.

"I doubt whether we can give you better proof," said Page. "As you say, we have constant access to the suits, we know how they are constructed and where the vulnerable parts are. No doubt you'll find our prints on the cutter and the other tools. But that won't prove one of us killed Bill."

"No, I agree," Morrey nodded, "but you do see, don't you, that you eight who run the stores must be our number one suspects?"

"What about the other six?" asked Serge. "Were they all as friendly with Baines? It is in your own interests to help us find the killer."

"We know that," Page agreed, "and speaking for myself there's nothing I want more than to find out who killed Bill. You tell me how we can help, Mr. Kant, and we'll do it."

"Was Baines the friend of all eight of you?" Tony enquired.

"No. David Evans hadn't much time for him, but the others got on with him well enough," Frobisher said.

"This David Evans—what had he got against Baines? Had they quarrelled?" asked Serge.

"No, they hadn't exactly quarrelled. They just didn't hit it off together. Not that there was enough in it to make David kill Bill," Page assured them hastily. "As for the other five—they were all friendly with him."

"Can you think of anyone, any one at all, who might have had the slightest motive for wishing to injure Baines? Someone who may have believed that those slits would perhaps cause discomfort rather than kill?"

Did Page and Frobisher exchange a momentary glance at Morrey's question? Tony thought they did. In any case, the question had started a new line of thought with him. Had someone killed Baines by accident rather than by design? Could it be that someone wanted merely to injure or shock him rather than cause his death? Could the slits in his suit even have been a very stupid prank that went wrong?

Both Frobisher and Page said that they didn't think anyone in Mars City would wish to kill Bill Baines.

"I didn't say 'kill'," Morrey said sharply. "I asked if you knew of anyone who didn't like him, and who, perhaps, wanted to teach him a lesson without foreseeing what would happen."

Morrey's was a clever question, Serge thought. The suggestion that whoever killed Baines might have done so by accident might be an escape route for someone. That "someone" was now too scared to own up. Yet Serge felt quite sure that anyone who had sufficient knowledge to have made those cuts would also have known their effects.

"There were one or two people who weren't too friendly with him," Frobisher said. "But none of them would want to kill him," he added hastily.

"Nevertheless we must find out who did this thing—even if it was only an accident," Morrey reminded them. "Who are these people?"

The two technicians looked thoroughly uncomfortably. They were obviously reluctant to say anything about some of their colleagues that might get them into trouble. You didn't do that kind of thing in a tight little community like Mars City. Morrey read their thoughts exactly.

"Everyone in this Base is under suspicion—and I mean everyone," he said. "You will be doing all your colleagues—and yourselves—a good turn by being frank with us. Now, who are the people who liked Baines least of all?"

"Well, if you put it like that I'll tell you," answered Page, "but I want you to understand that I'm sure none of them disliked him enough to murder him."

Morrey nodded. "Who are they?" he asked.

"David Evans I've already told you about," the technician said, still a little reluctantly. "Then I don't think Lieutenant Dickson is very fond of him. Or Dr. Powell."

"There's also Duke, Purchase and Keniey," added Frobisher. "I think that's the lot."

Both men thought for a little and then agreed that the list was complete.

"But I'm sure none of them would want to kill him," Page added with conviction.

"That's something we shall have to sort out," Morrey told the two men. "The human mind sometimes plays some very peculiar tricks. However, thanks a lot for your help."

"Are we in the clear yet?" Frobisher asked.

"No. No one is in the clear until we've found out who cut those slits," Morrey answered firmly.

There was little more that they were likely to get from these two technicians. It would be interesting to interview the other six—particularly David Evans—and to see if their information tallied with that of Page and Frobisher. The astronauts were not looking forward to the tedious task of interviewing everyone on the base, but it was a job they would have to do, unless they could find the criminal in the early stages of their investigation.

"Just hold these pieces of film between your thumbs and four fingers of each hand," Serge told the technicians. He handed each of them two small pieces of film he had taken from a packet in his pocket.

"We may as well start by taking your fingerprints," he explained with a smile.

"Now," said Morrey briskly as they left the suit stores, "I'll go and fix up with the Commander to interview and fingerprint everyone. Will you two go and see how our friends are getting on with the fingerprints on the tools and the log book. See you back in my cabin in thirty minutes."

As he loped off towards Morrison's office Morrey wondered if they were really getting anywhere. Had they made any progress at all in their search for the criminal? At least they were starting to get a picture of what life was like in Mars City.

Commander Morrison rose from his desk as the astronaut entered.

"I've just completed that list of possible implements," he said passing a sheet of paper to Morrey, who glanced at it quickly.

"We've already found some of these in the suit stores," he said. "I've had likely ones photographed for fingerprints, and we'll do the same for all these as soon as we can. What I've come for is to ask if you will arrange for us to interview and fingerprint everyone in the base. We've already had a talk with Page and Frobisher, and I'd like to get on with the rest if you can arrange it."

"We have fingerprints in our files already," the Commander pointed out.

"Yes, I know. But as we've got to talk to everyone we may as well print them again at the same time. I think we'd like to start with the other six suit technicians if that can be arranged," Morrey said.

"Certainly. Would you like to use this office for the job?"

"That would be fine if we could—but it will upset your work too much, I'm afraid. It's going to take us some days."

"Well, you won't conduct your interviews all round the clock, will you?" the Commander smiled. "I can do my job while you are resting."

"Thank you. We'll do that. One other thing. Can we have a small laboratory to ourselves, one that we can keep locked up?"

"That's not so easy," Commander Morrison confessed. "You see, we can't afford the luxury of surplus accommodation in Mars City. There is a small lab. in Dome 4 where the algae tanks are. I'll get our biologists to move out and double up with someone else."

"You're very helpful, Commander," Morrey said gratefully. It was indeed a relief to have such wholehearted co-operation from the man in charge. Life would have been much more difficult if there had been friction between them, as could so easily have happened.

"That's O.K. As I've told you, I'm most anxious that this killer should be found as soon as possible. I don't want my staff getting jumpy wondering if they are under suspicion."

"Then, if we may, I'd like to start these interviews in, say, an hour's time. Can you get the other suit technicians lined up?"

Commander Morrison nodded.

"How's it going?" Morrey asked as he joined his friends in their quarters.

All four crewmen had been busy either developing positives of any fingerprints on the potential weapons or reading through the log book of spacesuit repairs.

Mervyn Williams reported to Morrey.

"We've got clear prints of the last user on most of the objects," he said. "The others are a bit blurred but, with patience, they could be identified."

"Anything noteworthy?" asked Morrey.

"Not particularly," Mervyn told him. "A number of the fingerprints appear on several instruments, and we're just about to start tabulating them."

"What about the scalpel?"

"Nothing unusual. It's got several prints, some plainer than others. All one can say about it is that no one has worn gloves to handle it or any of the other tools."

Was this a help or not, Morrey wondered. If the murderer was one of the technicians he would have no need to wear gloves to avoid prints on an instrument he used frequently in the course of his job. The Commander's list had tools in addition to those used in the stores. They must all be checked most carefully.

"How are you getting on with the log book?" Morrey asked Bob.

"We've come across three patching operations so far," Campbell reported. "I've noted the pages on which they appear. There's still more of the book to sift through."

"Good. Then we should be able to tell who used the scalpel, and when," Morrey said. At least they were doing something. But would it help them to find the murderer?

7

Commander Morrison was as good as his word. Within the hour he had vacated his office and turned it over to Morrey and his two companions. He'd also produced a list of all the Base personnel and had provided the personal record file of each.

"Now I'm going to leave you astronaut-detectives to it," he said as they settled behind his desk. "You'll find the other suit technicians coming along in a few minutes. Two of them had to be roused from sleep."

"'Astronaut-detectives,'" Tony repeated when they were alone. "Bit of a mouthful, isn't it? I think we should call ourselves 'astrotecs', don't you?"

"All right," sighed Morrey, "if it will make you happy. Now let's see. Whom have we first?"

A knock on the door announced the arrival of their first "customer". Morrey glanced down at the list the Commander had left. This should be André Cellier, a Frenchman.

It was. The rubicund little man looked worried as he announced himself. Morrey's brisk explanation that they were going to question everyone on the Base did little to allay André Cellier's uneasiness. How unlike a spaceman, Tony thought as he looked at the slightly sweating Frenchman. He looks more like the chef in a large hotel.

But M. Cellier was no chef. His papers, now on the table in front of Morrey, proved that he was a very skilled engineer, and that he had been responsible for several improvements in spacesuit design. They also revealed that he was a married man with a wife and five children living in a suburb of Paris.

As with Page and Frobisher, Morrey was quite blunt in saying that the suit technicians were his Number One suspects.

M. Cellier began to protest volubly.

"But, Monsieur, why should I kill him? I do not dislike Baines at all. 'E is a very good man. To kill a man you 'ave to 'ate 'im, no? If I wish to kill a man I do not cut slits in 'is suit. Zat is too crude."

"How would you have done it?" Serge asked with interest.

"I would 'ave made a leetle adjustment to 'is oxygen supply. 'E would not get ze right mixture, and in one—maybe two—'ours 'e would die. Zen everybody would have said it was an accident."

"H'm! Are there many ways in which a suit and its life support system can be tampered with so that the wearer will die?" Morrey asked.

Cellier was now in his element.

"Zere are at least six ways in which I could kill a man, and I do not t'ink you would know it was not an accident," he said, speaking rapidly. Tony noticed he wasn't sweating quite so much.

"If you did not kill William Baines, whom do you think might have done so? You know everyone in Mars City. Who were Baines's enemies?" asked Morrey.

"I do not t'ink anyone would want to kill him—"

"But someone did," Morrey interrupted sternly, "and if that 'someone' hadn't a particular reason to choose Baines, then he or she could choose you just as well. And may still perhaps, do so."

The perspiration was back again on Cellier's forehead. "You tiink there will be another killing?" he gasped.

"Unless we find the murderer there could be," Morrey told him.

But Cellier could give them no more information. He couldn't—or wouldn't—even hazard a guess as to who might have had a grudge against Baines. When Morrey told him he could go, he needed no second bidding.

"That seems to eliminate the suit technicians," Tony observed as soon as they were alone.

"Not at all," Serge sighed. "It would be quite easy for one of them, knowing the more sophisticated methods of making a suit lethal, to have adopted this rather crude way in order to head off suspicion."

"David Evans is the next on our list," Tony said, glancing at the sheet Commander Morrison had left. "Shall I call him in?"

Morrey nodded, and a few moments later Evans came in and was motioned to a seat. He was tall, slim and dark, and wore glasses. It was soon apparent that he was also humourless. 'Intense' was how Morrey later described him. His file revealed him to be single and without any known family.

"Why didn't you like Baines?" Morrey asked abruptly, almost before the technician was settled.

Evan started, and a faint flush spread over his pale face.

"It's true I didn't like him, but I didn't kill him," he declared with some heat.

"I asked 'why didn't you like him?'" Morrey repeated icily.

Evans quickly regained his composure.

"I take it that it's no crime to dislike a person? If it is, then half the people in this Base are criminals. I didn't like him because he irritated me. I think he took his job far too lightly. He wasn't above a practical joke, and he could say some very sarcastic things. All he seemed able to think about was his next spell of leave, when he was getting married."

"But surely he was entitled to think and talk about his wedding? If he was neglectful in his job that was the concern of the Commander and not yours. I still don't think you have given me sufficient reason for your dislike of him."

"Mr. Kant, in a small, confined community such as we have in Mars City, the same standards do not apply as on Earth. Here it is necessary for everyone to put his or her job first. If anyone fails to do so, it means that someone else has to do so much extra. All Baines seemed to think about was that fiancée of his. So he wasn't concentrating a hundred per cent on his tasks, Mr. Kant, and I don't have time for a person like that."

"Has he ever done anything to harm you? Said anything to upset you?"

"My job didn't bring me into contact with him very often—

just when he wanted the use of his suit. But he called me a 'stick-in-the-mud', and I don't like being called names."

"Who else didn't like Baines besides you?" Morrey asked.

Evans shrugged his shoulders.

"One or two people, I guess. Ask Dr. Powell if she killed him," he said.

In spite of further questioning the astrotecs learned little more from Evans. When he was asked to explain why Hilary Powell disliked Baines he just said that it was up to his questioners to find out. Exasperated, Morrey told him to go, but warned him that he'd be wanted again later.

"Dr. Powell?" Tony said as soon as Evans had gone. "Isn't she the psychologist woman? I wouldn't have thought that this was the work of a woman."

"Why not?" asked Serge. "Women are just as likely to commit murder as men. They form strong likes and dislikes just as men do."

"But as a psychologist wouldn't she be on her guard against such a thing? Surely that's her job—to iron out personal problems?" Tony asked.

"So you don't think doctors are ever ill themselves? Of course they are. Hilary Powell is just as likely to develop a powerful dislike of Baines as anyone else in Mars City. And when a woman dislikes anyone, she doesn't do it by halves," Serge said loftily.

"Oh, doesn't she?" Tony grinned. "I bow to your superior knowledge."

He laughed outright at Serge's discomfiture.

"Everyone knows that," the Russian said hastily.

The astrotecs managed to see all the remaining suit technicians in that session. They were unable to add anything to what Morrey and his companions already knew, but it was hinted to each of them they must remain the chief suspects until the murderer was found.

Tony was feeling a little tired—though he would never have admitted it—by the time they had finished questioning and fingerprinting the last of the suit technicians. When Morrey suggested they should have a rest period before continuing, he grinned his relief.

"We might also get a bite to eat," he said casually.

"When do you propose to take a look at the spot where Baines was found?" asked Serge as they were dining at their own table in the canteen.

Morrey looked around. There were between thirty and forty men and women eating at the same time as themselves—a reminder of the tremendous task they faced in interviewing everyone. Judging by the time they had spent in questioning the technicians it was going to take several tiring weeks to quiz nearly two hundred people. Was he right in insisting that all three astrotecs kept together? Would it not lighten the burden if they split forces?

"I'm just wondering whether you and I should carry on with the questioning," he replied to Serge, "and let Tony go and have a look at the spot."

Tony beamed with delight.

"That's the most sensible thing you've said in months," he declared enthusiastically. "You two are much better at questioning than I am, and my eyes are sharper than yours."

Morrey couldn't quite agree with this assessment, but he conceded that it had been Tony's sharp eyes, quick wit and cool courage that had saved the situation at Lunar City and solved the mystery of the fantastic happenings at the Base on the Moon.

For the first time that anyone could remember Tony rose from the table without finishing his meal.

"I-er-might as well get going at once," he suggested with a disarming smile. Morrey knew that now he had made the suggestion it would be difficult to hold back his young colleague.

"Don't be out too long," he warned. "Or I'll be out after you."

With a cheery wave Tony left his companions to go first to the Commander and then to the suit stores. From Morrison he got a large-scale map of the territory around Mars City. The officer pinpointed the small crater in which Baines's body had been found.

"I'll be surprised if you find anything," Commander

Morrison declared. "My men have been over the area very thoroughly."

"I'm sure they have, but I don't care much for this questioning business and I want an excuse to get away from it," Tony said confidentially. The Commander grinned sympathetically.

When Tony reached the suit stores he found Frobisher was still on duty with a young man named Paddock.

"Paul's off duty, if you want to ask any more questions," Frobisher began.

"No. No questions. I'm going out to have a look at the crater where Baines died. Is my suit ready?"

Frobisher looked relieved. Yes, Mr. Hale's suit was ready, naturally. It was in locker number 914. Would he like to put it on now?

Tony nodded. It would be a relief, and good exercise, to get out on to the Martian surface. Even if he discovered nothing, it would be useful to get an idea of the terrain in which Baines's body was found.

"Vic, will you help Mr. Hale?" Frobisher asked his young assistant. He went to the workbench to enter up his log book.

"Oh, I'd forgotten. Your crewmen still have my book. I'll have to make a scrap note of your issue and enter it when I get the book back. How long will you be out?"

"Oh, not more than a couple of hours," Tony answered airily. "I'm just going to have a look around."

"You'll have oxygen enough for six hours," Frobisher told him. "That should give you a good safety margin. We'll test your radio as soon as you are suited up."

Young Paddock led Tony to the locker bearing his number. The astrotec could see that inside it was his suit, carrying the same number on a small metal tag. With the technician's help he slipped into it quickly and loped over to Frobisher. The senior suit technician gave the suit a rapid examination.

"Just to make sure no one has slit this one," he said a little uncomfortably. "The Commander has ordered routine checks."

Tony's grin faded a little. What Frobisher had said made him wonder if he and his companions might not be at risk. He'd learned that there were half a dozen ways of arranging for a suit to kill its wearer besides the crude one of cutting slits. He would just have to trust that no one had tampered with the life system of his suit in any way. Perhaps going out alone hadn't been such a good idea after all. But he couldn't back out now. Vic Paddock fixed his helmet for the radio test.

"Everything's O.K.," Frobisher said shortly afterwards. The radio was certainly working, so Tony would be able to call out if he had the slightest suspicion about the functioning of his suit. He removed his helmet, gave the two technicians what he hoped was a cheery grin, and loped off through the central dome towards the airlock nearest his objective.

As he went, his thoughts were racing. What had started as a welcome diversion from the tedium of the interviews and an interesting visit to the fatal crater might turn out to be a highly dangerous undertaking. Was he not one of the team sent up from Earth whose job it was to hunt down the murderer? If the criminal thought that he—or she—was likely to be found, it would be a natural reaction to try to harm the members of the team before they could complete their task.

He reached the airlock, reported to its two attendants, who duly noted his excursion, and stepped into the chamber. The door was closed and a pump began to evacuate the air. Tony made a determined effort to put the disturbing thoughts of a few moments before from his mind. A dial showed that the airlock chamber was now down to a near-vacuum, so he swung open the outer door and stepped through. He was outside Mars City and the planet's bleak and inhospitable scene lay before him.

Would he die before he could return to the company of his fellow men within the Martian Base? What fate might overtake him in these grim, unearthly surroundings? He shivered, and then his natural courage re-asserted itself. He loped off purposefully towards the crater where a man had died.

8

"We'll check on the prints before the next session," Morrey said. "By now Bob should have finished with the log book."

They went over to their quarters in Dome One. Robert Campbell had indeed finished his examination of the log book from the suit stores, and he gave Morrey a sheet of paper summarizing his findings. It seemed that in the last three weeks before Baines's death there had been six suit-patching operations needing the use of the scalpel-like knife. A repair had been made just two days before the tragedy, and David Evans had done the job. One repair had also been done after the incident and before all the tools were impounded for fingerprinting.

Morrey frowned. This was going to make their job difficult indeed. It was a thousand pities that no one had thought of protecting all likely instruments immediately the crime was discovered. He scanned Bob's list, which recorded the occasions when likely instruments had been used, and by whom.

Turning to Mervyn Williams Morrey asked for a progress report on the fingerprints. The Welshman nodded towards a pile of positives.

"We've just about finished developing," he said, "but we haven't started to check up on them yet."

"I'll let you have the impressions we take as we get them," Morrey promised. "Then you can make a start with finding out who has touched any of the tools. Oh—we've got them for all the suit technicians, which will give you a useful start. Remember to be on the look out for any unexpected user."

He handed over to Mervyn the strips of film on which the suit technicians had made their impressions. It wouldn't take long to get prints and to start the vital work of checking with the photographs of implements from the suit stores.

"What about the other tools?" asked Serge. "Those on the Commander's list that are not kept in the stores?"

"Ah—yes," Morrey said at once. He produced the Commander's list and handed it over to Spier.

"Norman," he said, "here's a list, provided by Commander Morrison, of all the implements that he believes could have made the slits. Will you round up all those we haven't seen? We'll have to photograph every one."

The baldheaded crewman would have scratched his hair if he'd had any. Instead he rubbed his shining cranium as if to give it an extra polish.

"It's a bit of a job, isn't it?" he asked mildly. "But you've chosen the right man to do it. I'll go through this Base with a toothcomb until I've found and brought in every tool on this list. If I see any not on the C.O.'s list that I think may have done the job am I to bring them in as well?"

"Of course. We've just got to find out how those cuts were made. Then we're part of the way towards discovering who made them," Morrey told him.

While the crewmen went about their various tasks Morrey and Serge returned to the Commander's office to resume the task of interviewing and fingerprinting. For another two hours they continued their job, seeing eight more men in that time.

"Have we learned anything fresh?" Morrey asked as he rose, rather wearily, from the Commander's desk.

"Not much," Serge admitted. "If any of them have an idea who the murderer is, they're keeping it to themselves. I think we'd better call in Dr. Powell, and the others who didn't like Baines, in our next session. At least we might get something from them."

Morrey nodded.

"I wonder how Tony is getting on," he said suddenly. "He should have been back before now."

It was nearly two miles from Mars City to the spot where William Baines's body had been found. Tony followed the large-scale map as he loped away from the Base. In the sunlight—noticeably weaker than that on Earth—he observed the Martian landscape.

It had the fundamental features of an almost airless body—meteor craters of all sizes and a dry, crumbling top soil. But its colouring was unlike that of the Moon, being much darker and more varied.

What was the life history of Mars? This was the question that absorbed everyone on coming to the planet. Tony was convinced that there had once been a very high form of life on this barren world. Had not the experiences of their first visit confirmed this? Now Martian life seemed to have disappeared because of the planet's arid climate. As its water had gradually evaporated into space because its gravity was just too small to retain it, so life had become more difficult. Now only the vestiges of its former vitality remained.

Perhaps what had happened to Mars eons ago might still happen to its sister planet, Earth. Maybe Earth's future was inscribed on the barren rocks of Mars. Perhaps Mankind's fate was to be learned on this dead world. For the researchers in the Martian Base there could be no more vital or absorbing task.

However, Tony had not come to speculate on these problems, absorbing though they might be. His job was more mundane—to seek for clues about the murder of William Baines.

He knew from the map in his hand that he was travelling in the right direction. Soon he had covered more than a mile and he paused to look back at Mars City. It was exciting to see the evidence of Man's bold venture on to this planet, proof that Man had established himself on this world so different from his own. Tony could see the central dome and three of the smaller ones glinting in the pale Sun—friendly features in this otherwise hostile scene.

On his helmet radio he could hear the chatter of other Base personnel who were also outside on different jobs. He listened idly to them for a few moments but didn't recognize any of the voices. Though the scene around was barren and without another human being in sight, the voices told him that fellow creatures were not far away. He resumed his journey without breaking into any of the conversations.

In another fifteen minutes Tony was nearing his objective. He remembered the two rocks, one much larger than the other, that marked the crater he was seeking. They were easy to find, for there were few other rocks of any size in the area. He went cautiously towards the rim.

The crater, probably caused by the impact of a small meteor, was no more than ten metres in diameter and about two deep. Around the edge were the familiar raised walls thrown up when the meteor first struck. It was in many ways similar to the countless pockmarks on the face of the Moon. However, the crater's sloping sides, under the greater Martian gravity, were not nearly so acute as their counterparts on Earth's satellite.

Tony could see that the surface soil had been disturbed. There hadn't yet been one of the great Martian dust storms to eliminate signs of the tragedy that had taken place. He bent down to have a closer look, and for some minutes studied the soil around. There were a number of footprints jumbled around a smooth patch where, presumably, the body of Baines had lain. The pattern of the prints told him nothing, accept that the account of finding the body was probably true. He could picture the returning geologists, led by Dushlak, seeing the dark shape in the shallow crater.

He could visualise their attempts to help Baines and their horror when they found that he was dead. Nearby should be the tracks of the vehicle without which no party went far from the Martian base. The body would have been lifted on to the vehicle and the party would have set off as quickly as possible to return to Mars City.

Looking round, Tony saw the vehicle tracks as expected. They came to within four yards of the crater rim, and the footprints clearly revealed the tragic story. Tony could also see that there were no sharp rocks or jagged surfaces that could possibly have caused those slits. Even the two rocks which marked the fateful crater couldn't have been responsible for the damage, for they were relatively smooth.

What had Baines been doing in that particular crater? The information was that he was out on a recreational walk, so his route would not be planned. He'd have been able to wander about at will so long as he didn't stray too far from Mars City and kept in radio touch. As an experienced man he would have been unlikely to exceed his time limit. Maybe it was just by chance that he had collapsed in this particular depression.

Tony spent more than fifteen minutes studying first the crater itself and then the rim. He carefully scanned the two rocks and the area just around. There were many footprints and it would be very difficult to discover which had been made by the dead man. He made a mental note to have casts taken of all who had been involved in the recovery of the body, together with those of the victim himself. Perhaps there would be slight differences which might help him to identify Baines's footmarks. It would be useful to—

Tony nearly jumped out of his skin. Something had touched him!

He swung round to find that, while he'd been absorbed in studying the ground and looking for clues, someone had approached and put a hand on his shoulder.

"Who are you? Please identify yourself," a voice said over his helmet radio.

Tony looked at the suited figure that stood before him. He couldn't tell who was inside it, so he could well understand why the newcomer had failed to recognize him. After all, he hadn't been in Mars City much more than a day, and certainly hadn't met all the Base personnel. Yet somehow he felt a little irritated at the question and command. Perhaps it was the tone of voice.

"I'm Hale, Tony Hale," he replied. Then he recognized his questioner through the man's vizor.

"You're Lieutenant Dickson, aren't you? You startled me for a moment."

"Sorry, Mr. Hale. Yes, I'm Dickson. I wondered who it was, paying such close attention to the spot where Baines died. I thought it might have been—"

"The murderer? No, it's me."

"Have you found anything? Can I be of any help?"

"No. I'm just going back. There doesn't seem much out here."

He decided not to tell Dickson of his intention to have plaster casts made of everyone's spaceboots. This must be for his colleagues' private information only.

He was surprised that Dickson could have come upon him unawares. Still—he supposed that he'd been so engrossed in looking for clues that he hadn't noticed the officer's approach. Really, he must keep a sharper look-out in future. Suppose Dickson had been the killer. He would have been able to strike Tony down, and the astrotec would never have known what hit him.

Tony remembered that the Lieutenant was one of the people, mentioned by Page and Frobisher, who had disliked William Baines. Though Dickson had been friendly and helpful to them since their arrival in Mars City, he mustn't let that cloud his judgement.

It was then that it happened. Lieutenant Dickson, who was standing just behind the astrotec, must have stumbled. In falling he caught Tony a heavy blow in the back which sent the young man crashing to the ground. Only the light gravity of Mars saved him from a heavy fall and possible injury. As it was, he was dazed and shaken, wondering for a moment what had happened. He turned and saw the officer towering about him.

"I'm most dreadfully sorry," Dickson apologized over the helmet radio. "I stumbled and caught you. Are you hurt?"

"Not really," Tony replied, struggling to his feet, "but it's a good job there are no sharp rocks around and that this area is quite smooth. Otherwise I might have gone the way of poor Baines."

"We'd better get along, there's a storm coming shortly," the Lieutenant said conversationally. So the two loped off side by side.

A storm? Tony guessed that Dickson meant one of the dust storms that were such remarkable features of the Martian climate. Long before even the first automatic probe had landed on the planet, visual observers on Earth had been aware of these gigantic upheavals. Vast quantities of sand and dust would be sucked up into the thin atmosphere, reaching a height where gale-force winds would churn them into a thick cloud hundreds —sometimes thousands—of miles in extent. If such a storm occurred all footprints around that crater would be obliterated for ever. Even the remote chance that they might hold a clue would be lost.

"When will the storm come?" asked Tony, hiding his anxiety.

"We can predict its arrival to within a few minutes," Dickson replied. "This one is approaching at a fair speed and should be here in under ten hours. It's likely to last for some time."

Tony knew that information was received from automatic stations placed at intervals all over the planet. These helped the meteorologists in Mars City to forecast accurately the approach and duration of a dust storm. External activities had to be completed before the storm broke, for then work outside became impossible. Unconsciously Tony increased his pace back to the cluster of domes.

They completed the rest of their journey to Mars City in silence. Tony being preoccupied by the need to photograph the footprints round the fatal crater before the dust storm came and covered them up. He went straight to the suit stores, handed in his equipment to young Paddock, and went off to see if he could find Morrey and Serge. The Commander's office being empty, he guessed that they had finished their interviewing session and were back in their quarters. That was where he found them.

"We were getting a little worried about you," Morrey confessed at once. "Was your journey worthwhile?"

"I don't know yet," Tony answered, "but there are a lot of footprints round the edge of the crater. I'd like to get them photographed before this wretched dust storm starts."

"So we're having one of those, are we? I'll get some of the crew to go out and do the job for you. They should have finished with the fingerprints and the log book by now," Morrey told him.

"When is the storm due?" asked Serge.

"I met Lieutenant Dickson out there," Tony replied. "It was he who told me about it. He says it's due in less than ten hours."

"Then perhaps the crew had better go before we all turn in," Morrey decided. "You going back with them?"

"I suppose so," Tony sighed. He was feeling quite tired, and his fall had shaken him more than he realised.

9

When Morrey went to see his crew he found that they had indeed finished their tasks. Mervyn Williams produced three photographs.

"These are fingerprints of non-technicians that we found on the scalpel." he told the astrotecs. "We haven't identified them yet, for you haven't printed everyone, have you?"

"Not yet," Morrey admitted, looking at the three positives with interest. Could they carry the clue that would lead to the murderer? He'd want some explanation from their owners as to how the prints came to be on the razor-sharp tool.

"I want you to take a little trip outside," Morrey went on. "Tony has been to see the crater and he wants the footprints all round it photographed. It seems that we're to have one of the famous Martian dust storms in a few hours, and that will wipe them out."

"We'll get moving at once, then," Mervyn replied. "Who is coming?"

Bob Campbell was only too pleased to volunteer for the excursion. So was Norman Spier. So the party was made up of Tony, Bob, Mervyn and Norman. They went to the suit stores, now under the charge of David Evans. Tony had to see that his oxygen supply was replenished after his recent excursion. The suit technician barely spoke while the quartet were getting dressed, and Tony wondered if he guessed what they were about to do.

In quite a short time the party assembled at the airlock, checked their radios, and fastened their helmets firmly in place. They passed through the lock and, with Tony in the lead, made their way towards the small crater that was their objective.

They still had more than eight hours left before the dust storm was expected to hit them. This gave them ample time to take all the photographs they needed, and to come back a second time if there was a need for any re-takes.

At the crater rim Tony, who was in the lead, stopped in utter astonishment. The others came up to him wondering what was the matter. The astrotec didn't speak, just pointed downwards. For around about the ground had been scuffed and scraped. There were no more footprints! In the short time since Tony and Lieutenant Dickson had left, someone had destroyed any evidence that the footprints might have provided.

The four men stood around irresolutely. There was nothing left to photograph. But why had the prints been obliterated, and by whom? In a few hours the storm would have wiped them out. It seemed that whoever was responsible hadn't wanted those photographs taken!

Tony's thoughts were racing. Could it be that the murderer had done it? Had the criminal been standing on this same spot a short time before? Yet how had he—or she—known that the astrotecs meant to record the prints? He tried to recall the events of the last hour.

After he and the Lieutenant had returned to Mars City he'd gone to report to his friends, and they had made up the team for the excursion at once. Unless Lieutenant Dickson had mentioned Tony's visit to the crater to someone, no one outside the investigators knew.

Lieutenant Dickson? Had it been the Lieutenant who had killed Baines? That there was no love lost between the two men had been confirmed by Page, Frobisher and others. Yet Dickson had always been so friendly, pleasant and helpful. When he'd stumbled against Tony before starting the journey back from the crater he'd been full of apologies. No—it couldn't be the Lieutenant, Tony told himself. But then who else might it be?

With a signal to his companions Tony requested radio silence. He didn't want any eavesdropper on their conversations. He wanted to get back to tell Morrey and Serge as soon as he could.

He had difficulty in containing himself until his spacesuit had been stored away and he'd joined the other two in their own quarters. Then he burst out with the news.

"If we can find who wiped out the footprints we've got the murderer," he concluded.

"Not necessarily," Serge said cautiously. "It could have been done by someone who just wanted to hinder our enquiries but was not the murderer himself."

"But why would anyone do that?" Tony demanded.

"I've no doubt that there are several people in Mars City who don't welcome our presence," Serge replied. "Remember we were not very popular when we insisted that the crew had quarters next to our own. Someone had to be turned out. I know that sounds a small thing to get upset about, but in the artificial conditions of this Base things tend to get magnified. So don't conclude that it was the murderer who destroyed the prints. It may have been. But then again it may not."

"Well, I intend to find out who it was," Tony said doggedly. "Do you think it could have been Lieutenant Dickson?"

"I doubt it," Morrey said. "Remember he'd only just come back inside with you. Also he was the one who told you about the dust storm. If he hadn't, you would not have known that the prints were in danger. The storm could have been left to wipe out all the marks."

"There should be a full record of all persons outside the Base at the time," Serge pointed out. "There cannot have been too many."

Then Morrey cut in.

"All this can be done later," he said. "We can also question Dickson. But if we don't get some sleep we'll not be fit to question anyone. So off to your bunks, all of you."

Tony went reluctantly. It was true that he was very tired, but as he lay in his bed he was still wondering. Was Lieutenant Dickson the killer of William Baines?

The next thing he knew was that someone was shaking him.

"Come on. Get up. We've some news for you," Serge was saying.

Tony rubbed his eyes and sat up. It seemed only minutes since he'd flung himself down on his bed.

"What's the news?" he yawned.

"You get shaved, washed and dressed, and then come to Morrey's room," Serge smiled. "You won't know till then."

With a groan Tony rolled out of bed and commenced his toilet. In spite of feeling he'd hardly slept he had joined his companions in ten minutes flat.

"Come on. What is it?" he called almost before he'd closed the cabin door.

"We didn't know whether or not you had decided to have a day in bed," Morrey said with a smile, "so we started enquiries without you."

"That's mean of you," Tony grumbled, "but what have you found out?"

"Firstly—that it was not Lieutenant Dickson who destroyed those footprints. He never left Mars City after he returned with you. Of that there is no doubt. We've checked and double checked."

"Then who was it? Who else was outside?"

"That's the second piece of information we have. There were only three people outside the domes at the same time as you—three, that is, besides the Lieutenant. They were—" Morrey glanced at a paper in his hand—"Jack Share, a suit technician, Dr. Hilary Powell, and Ken Purchase, a catering officer."

Tony thought quickly. One of these three must have seen Dickson and him leave the crater, guessed his interest in the footprints and wiped them out before he could return to record them. That he'd seen no one mattered little, for he hadn't noticed Lieutenant Dickson until the officer had patted him on the shoulder. The surface of Mars was an easy place to find concealment. Whoever had destroyed the evidence could have been quite close at hand without being seen.

They were narrowing down the field with a vengeance. It was all very well for Serge to say that the person rubbing out the tell-tale marks might not be the murderer. Tony had a feeling in his bones that one of the three people Morrey had mentioned was the criminal they were after.

But Dr. Hilary Powell! It was hard, somehow, to think that William Baines had been killed by a woman. But his companions had insisted that it was quite possible, so he had to accept her as a suspect.

Wait a minute! Wasn't Purchase, another of the three people outside at the time, one of the six who didn't get on with Baines? Yes, Tony was sure that the catering officer was on Page's and Frobisher's list. Then what about the third person, Share? He was a suit technician, so they must have questioned him already. But they would have to see him again.

"When are we going to see these three?" Tony asked. "Though we've had Jack Share already, haven't we?"

"Yes, we saw him with the other suit technicians, but this excursion of his makes it necessary to see him again. There's no time like the present. Shall we go?"

It spoke volumes for Tony's intense interest in seeing Dr. Powell, Purchase and Share that he didn't even suggest breakfast before they began their task.

A little later the first of the three knocked on the door of Commander Morrison's office. It was Jack Share, the suit technician who they had already seen once. He was probably the oldest man in Mars City. Tall, lean, and with completely grey hair, he was sometimes called The Old Grey Fox, because of his sharp features and restless eyes.

"We want you to account for every minute of your time outside during your recent excursion," Morrey said, coming straight to the point.

The technician looked surprised and uncomfortable.

"You've already questioned me once, Mr. Kant."

"Yes, I know. But something happened during the time you took a walk outside the base. I want to know exactly what you did and where you went from the time you went out of the airlock until you checked in again."

"I didn't commit a murder," Share began sarcastically. Morrey cut in sharply.

"I never said you did. But please understand that I am empowered to use any means to find out who is the killer at large in Mars City. Remember that as a suit technician, you are under suspicion. Anything less than complete frankness can only increase that suspicion. Now account for your excursion."

Jack Share flushed and then his face went paler. His sharp, dark eyes darted from one astrotec to another, and Tony was not surprised to learn, later on, of his nickname.

"I've nothing to hide," Share said. "It was a recreational excursion, to which I am entitled by regulations. I was outside the Base for about two hours, but I expect you know that."

Morrey nodded.

"It's what you did and where you went that we want to know," he said. "Can you indicate your route on this map?"

On one wall of the Commander's office was a large-scale map of Mars City and the territory several miles around it. It had been made from high altitude photographs and was sharp and accurate. Every rock and crater—except the very smallest—could be seen. Baines's crater was quite plain. Jack Share walked over to the map.

"This was my route," he explained, tracing a path on the map with his finger: "I visited this crater and this. Then I walked along this rift for about a mile, after which I came straight back to the Base."

"That wouldn't have taken you two hours," Tony pointed out. "You covered less than three miles."

"You're very smart," the technician said sarcastically, "but I happen to have a hobby, collecting interesting bits of rock. I always walk slowly because I'm on the lookout for pieces that take my eye."

"Yet you're not a geologist," Serge observed. "Why do you want those rock samples?"

"I never said I was a geologist," Share replied coolly. "And if it's any business of yours I collect bits of rock for souvenirs for friends back on Earth. Some I sell and earn quite a bit of pocket-money. That's not a crime, is it?"

"I'm not sure," Morrey answered. "It's probably against regulations, but it's no concern of ours. Did you at any time go near the crater where Baines was found?"

"Of course not. I've told you exactly where I went. You can check the rock samples still in my bag. They will confirm the places I visited."

"We'll do that," Morrey said. "I'll send someone along for your bag if you'll tell them where it is. Just wait outside, will you?"

When the technician had gone Morrey went to the phone and asked Norman Spier to come to the Commander's office to collect Jack Share, accompany him to his cabin and take over the bag of rock samples. Mervyn Williams was to get ready for an excursion in which he would follow Share's alleged path exactly, then check for rock samples and the timing.

"That should settle him one way or the other," Morrey said. "Now whom have we got next? Ah! Dr. Powell!"

A few moments later the psychologist came in and the three astrotecs eyed her curiously. Morrey rose politely.

"Please sit down, Doctor," he said. "There are quite a few questions we must ask you."

The woman took a chair—a trifle nervously, Tony thought. She was of medium height, and had long brown hair that fell in a fringe round her shoulders. The face was quite attractive, and she wore just a touch of make-up. Her brown eyes darted from Morrey to Serge and Tony, then back to her chief inquisitor. Following his usual technique, Morrey began his questioning brutally.

"Dr. Powell, why did you dislike William Baines so much?" he asked.

"It—I—it's no business of yours." Her face was drained of colour, so that her make-up, slight though it was, stood out in contrast.

"It *is* my business," Morrey replied sternly. "Everything that happens, or has happened, in Mars City is my business until my colleagues and I have found out who killed William Baines. So I'll repeat my question. Doctor, why did you dislike Baines so much?"

There was no answer. Her mouth quivered for a moment and then her eyes glazed over. She slid from her chair in a faint.

10

The three astrotecs rose in some consternation. They had been trained to meet all kinds of emergencies and during their space career each had had to cope with a variety of events both dangerous and unexpected. They had repaired damaged spaceships, rescued stranded friends, faced unimaginable perils on hostile distant planets. But they had never before had to deal with a woman in a faint. This just wasn't in the book!

What were they to do? Tony, ever practical, made Dr. Powell more comfortable as she lay, folding up his jacket and placing it under her head. Morrey picked up the phone and requested the urgent attendance of a medical officer. Serge chafed the unconscious woman's hands, for he knew that this helps to keep the patient's circulation going and speeds the return to consciousness.

However, their alarm was soon allayed. Even before the doctor could get there Miss Powell's eyes had opened and she'd attempted to get to her feet.

"Stay there a moment, Miss Powell," Morrey ordered. "The doctor will be here any second."

"I'm—all right," she gasped. "I'm terribly sorry—making such a fool of myself."

She insisted on getting up, resumed her seat a little unsteadily, took a few deep breaths, and declared that she was ready to go on with the interview. Just then Dr. Carter arrived. He looked at Miss Powell closely, felt her pulse and said she was well enough to carry on. But he insisted on her going to his surgery when the astrotecs had finished with her.

"Now, Miss Powell," Morrey began when Carter had left, "if you're quite sure you are well enough, we'll carry on."

"Quite sure," she answered with a wan smile, "but I'll just trim this fingernail that I seem to have broken when I fainted. Nothing irritates me more than a broken nail, because I seem to catch it on everything."

Morrey motioned her to carry on. He always felt the same himself. She produced a neat pair of nail scissors from her shoulder handbag and proceeded to trim the offending nail. The operation successfully completed, she faced her inquisitors calmly.

"I believe you wanted to know why I disliked William Baines," she began. "Well—I'll tell you—though it is rather personal."

Her fingers twitched nervously, and it was plain that she was making a great effort to keep her self-control.

"There was a time," she went on, "when—well, when I thought I was in love with Bill. We were posted here at the same time, became very friendly and, I believed, came to love each other. I—I was sure that he was as fond of me as I was of him."

She paused; it was plain that her explanation was painful to her. She went on with a rush.

"I was wrong. He didn't care for me at all. When he told me he was to marry on his next leave back to Earth, I knew the truth. He had used me to combat the boredom of Mars City."

The three astrotecs looked at each other uncomfortably. They hadn't wanted to pry into anyone's private affairs, but half their task was to uncover a motive that could have led to Baines's death. Dr. Powell, it seemed, had a pretty strong one. But had it been strong enough to make her commit the worst crime of all?

"Thank you for telling us, Doctor," Morrey said courteously. "I understand how difficult it has been. I understand how you came to dislike—perhaps hate—William Baines. But—"

"I didn't say I hated him," she broke in. "There's a great deal of difference between 'dislike' and 'hate'. The first is a state—"

"All right, Doctor. But I would have thought you had a very strong motive for revenge."

"Maybe, but I didn't kill him," Hilary Powell shouted, springing to her feet. "That's what you're hinting, isn't it?"

"Calm down, Miss Powell," Morrey urged. "If I can switch to another subject, tell us where you went on your last excursion. Use this map and point out your route."

She went to the map on the wall and studied it for a few seconds.

"I didn't pay particular attention to where I went," she began. "All I wanted was to get outside. Oh, I know it's my job to avoid treat nervous strain in the Base personnel, but no one thinks I'm subject to the same stresses myself. A walk outside is what I often prescribe for others."

There was an uncomfortable silence, during which Tony decided it was a dozen times easier to question a man than a woman.

"As far as I can remember I went this way," Dr. Powell, calmer now, went on, indicating her route on the map. In silence the astrotecs noted that on her own admission she had passed within a hundred yards of the fatal crater.

"What did you do? Did you see anyone else while you were out?" asked Morrey.

"I'm afraid I didn't do anything very much," Dr. Powell replied, "except wander about. I find the physical exercise is a great restorative after a spell in close confinement."

"But did you see anyone else during your walk?" Morrey persisted.

"No, I didn't. Why? Did anyone see me?"

"We are asking the questions, Doctor," Morrey reminded her. "Did you go up to the crater where Baines was found?"

"Certainly not. I wouldn't go near the place."

"Have you never been near the crater?"

"Never. Or at least not since Bill was killed."

"Then if we find your footprints round it, you will have lied, won't you?" Serge said quietly.

She gave him a startled look.

"If! But you won't," she said with some heat. "I've told you the truth, Mr. Smyslov. I challenge you to find any of my space-boot prints anywhere near."

"Are you saying that because you know that all trace of any footprints has been destroyed?" Morrey asked sharply.

"Destroyed? Oh, you mean this storm? I hadn't thought of that," Miss Powell replied. "It's a pity, for if it hadn't reached here just yet you might have been able to check my story."

"It's easy to say that now, isn't it, Miss Powell?" Tony said, and she flushed.

"I didn't arrange the dust storm," she pointed out sarcastically, "but perhaps you think I did!"

"That will do—for the moment," Morrey said. He could see that they wouldn't get much more out of her. Had she proved that she didn't obliterate the prints? He'd like to hear what the other two thought. As she rose to go he passed her the piece of film and invited her to record her fingerprints. After a moment's hesitation she did. As Tony took the film carefully from her she swung round and, with a toss of her long brown hair, stalked out of the Commander's office.

"Well—did she do the rubbing out?" Morrey asked the others as soon as they were alone.

"No," said Tony.

"Yes," said Serge.

"You'd both better explain," Morrey grinned. "You start, Tony."

"I think she'd genuinely forgotten the dust storm when she challenged us to go out and look for her prints."

"But if she had forgotten about the storm isn't that all the more reason why she removed the prints herself?" asked Serge. "Remember, she's admitted that she was within a hundred yards of you. She must have seen you."

"Possibly," Tony conceded, "but she couldn't read my thoughts and know that I was coming back with a camera—even if she is a psychologist."

"I don't think it would be a very difficult deduction—that you were going to take photos," Morrey smiled.

"Why did she pass out when we asked her about Baines?" Tony demanded. "That's the most suspicious thing about her so far."

"I don't think you should draw that conclusion," Serge said. "If, as Miss Powell said, she was in love with Baines, found out that he was going to marry someone else, and then came under obvious suspicion of his murder, she must have been very tense even before we started the questioning."

"Women!" snorted Tony. "I'll never understand them."

"You will," grinned Morrey. "Now what about this other excursionist?"

"His name is Kenneth Purchase," Serge reminded them.

When the catering officer was invited in, he stared round defiantly.

"I don't know what you want to see me about," he began in an angry tone. Morrey silenced him sharply.

"It's our intention to see everyone in the base, and you, Purchase, are no exception. We have been sent here to find out who killed William Baines. We intend to leave no stone unturned until we have found the criminal. Until that is done, everyone in Mars City is suspect—including yourself."

"You've got nothing on me. I didn't kill the fellow."

"Calm down, Purchase. You'll do yourself no good by adopting this attitude. Don't you want us to find the murderer?" asked Morrey pointedly.

"Well, I'm not the killer. Whether or not you find him is up to you. But don't expect me to do your dirty work for you."

Now it was Morrey's turn to get angry.

"You can cut that out. If you continue this attitude I'll have you shipped back to Earth on the next ferry. A report from me and you'll be dismissed from the Service. Take your choice."

Purchase's face had become a shade paler. But he knew his rights.

"I'm saying nothing," he maintained. He sat with folded arms, looking defiantly at the astrotecs.

"If you have nothing to hide, you'll answer our questions," Serge said quietly. "If you don't, it's reasonable for us to assume that you know more about this affair than you care to admit."

"Please yourselves what you assume. You can prove nothing."

"You went on an excursion a few hours ago," Morrey told him. "Can you point out on this map where you went?"

"I don't see why I should. Does it matter where I went for my walk?"

"Did you go near the crater where Baines was found?"

"I may have done. Probably did. But what of it? Are you going on the old theory that a murderer always re-visits the scene of his crime? You're not going to catch me like that, Mr. Clever."

"Did you see me at all when you were out on your walk?" Tony asked.

Purchase looked at him scornfully.

"I saw someone, but whether or not it was you I neither know nor care."

Tony felt his dislike for Purchase increasing every moment. However, dislike wasn't enough. As the man had said—it was proof that was required. He could understand how animosity could grow up between William Baines and Kenneth Purchase. The question was—had their mutual dislike become so great that murder was the result?

"Let's have your fingerprints," Morrey snapped. He could see that they were not going to get any information from Purchase.

The catering officer remained with his arms folded. He stared at Morrey truculently.

"You'll have to get them by force if you want them," he said sullenly.

"Nothing would give me greater pleasure," Morrey spat out. "But that won't be necessary. We'll use the prints from your records. Now get out."

Purchase rose, gave an insolent stare at each of the three astrotecs and talked out of the Commander's office.

"Phew!" Tony breathed, "what a nasty piece of work!"

"We must be careful," Morrey advised, "not to let personal feelings enter into this. And I myself must watch it. Because Purchase is offensive, it doesn't make him a murderer. We must go on facts, and facts alone."

"I know," Tony grumbled, "but you can't help your thoughts, can you?"

"Well, what have we learned?" asked Serge. "Do you think any of those three destroyed the footprints?"

"Who else? It must be one of them," declared Tony. "Share, or Dr. Powell, or that creature Purchase."

"I think we can wipe out Jack Share," Morrey said thoughtfully. "He may be a sly old chap, but I can't see him killing anyone, or bothering to wipe out the prints. I believe his story—that he wasn't anywhere near that crater."

"Then what about Dr. Powell?" asked Serge. "She was very upset when we started to question her. Could that be a sign of guilt? Did she rub out the footprints? She was within a hundred yards of the crater."

"But she challenged us to check on her own prints," Tony pointed out. "She wouldn't have done that unless she'd been—ah! unless she really knew they had been destroyed by the storm."

"We must keep her on our list of suspects," said Morrey. "Now, what do you make of Purchase?"

"A nasty character if ever I saw one," Tony burst out. "Why should he be so unco-operative? Has he got something to hide?"

"He's the type of man who resents all authority," Serge declared. "He'd never accept orders willingly, but that doesn't make him the killer."

"We didn't find out why he didn't like Baines," snorted Tony, "and there certainly cannot be many who like Mister Purchase."

"Remember we said that the person who destroyed your clues, Tony, wasn't necessarily the killer of Baines. We said it might be someone who just didn't like our being here and wanted to hinder our investigation. Purchase could be just such a person," Morrey declared, "which proves that we must concentrate on finding the killer rather than the destroyer of the footprints. Let's not spend too much more time on them."

"I still think it could be the same person," Tony maintained stoutly.

"We'll keep that in mind," Morrey agreed, "but now let's see if our crew have dug up anything."

They went to the small laboratory that had been put at their disposal and which they used as their general workshop. Mervyn Williams hadn't yet returned from his task of tracing Jack Share's steps and comparing his rock samples with those on Share's alleged route.

Colin Johnson had been examining the dead man's spacesuit under a microscope. In one of the fatal slits he had inserted a thin sliver of steel. He drew it out and held it up for the astrotecs to see.

"I've been measuring the length of the slits," he said. "This piece of steel just fits. It is ten millimetres wide, exactly the same as that of the scalpel."

"So that's pretty conclusive evidence that it was the scalpel that was used," Serge said. "Are there any more likely tools of the same size?"

"No," Colin told him. "Most of them are wider and couldn't possibly have been used. Just a few are narrower and are hardly likely to be of interest to us. I'm certain it was the scalpel."

"So now we've to find out whose prints are on it. Maybe we won't have to stay in Mars City much longer," said Morrey.

It wasn't going to be as easy as he thought.

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It was Robert Campbell who had been trying to identify those three strange prints on the scalpel. Discounting all those that belonged to any of the suit technicians, there were still three people who had used the instrument recently. Impatient at the length of time it was taking to get fresh impressions of all the Base personnel, Morrey had requested Commander Morrison to place his official records at their disposal. As a result the crewman felt certain he knew to whom the three strange prints belonged. He handed his photographs, together with those of his suspects, to Morrey.

With Serge and Tony bending over his shoulders, Morrey pored over the prints. Yes—there could be no doubt about it. The three strange prints belonged to Purchase, to Lieutenant Dickson, and to Baines himself!

There came immediately flooding back into the minds of all three of them the thought that Baines might, after all, have killed himself. Had he, in a moment of mental disturbance, decided to take his own life? Had he been the one who had cut the slits in his own suit with the scalpel?

"Yet why should he do it?" Morrey asked, reading their thoughts. "He could have chosen a far quicker and less painful way out."

They all knew that the loss of the suit's internal pressure would cause the wearer to have "bends", the very painful condition that divers experience when rising to the surface too rapidly. There were, surely, a dozen less painful ways of committing suicide.

"And from all we've heard, Baines wasn't a suicidal type," Tony insisted, "so I think we ought to concentrate on the other prints—of Lieutenant Dickson and Purchase."

"No print of Dr. Powell's?" asked Serge.

Bob Campbell shook his head.

"Certainly not on the scalpel," he replied, "but as for other tools?"

"Don't bother about those yet," Morrey interrupted. "We'll concentrate for the moment on Purchase and the Lieutenant. I wonder what explanations they will have for using that knife."

"That seems to rule out Miss Powell altogether," Serge suggested.

"Possibly," Morrey agreed cautiously.

Tony was silent. Something at the back of his mind was troubling him, and he couldn't think what it was. They all adjourned to the canteen, and the young astrotec was strangely silent as he ate. He was trying to remember something, but it wouldn't come.

"Now for our friend Mr. Purchase," Morrey said grimly after they had finished their meal. "Let's see if we can have the Commander's office once more."

They could. Commander Morrison agreed to vacate his office again for a few hours. Morrey gave him no explanation, but said they urgently wished to interview Purchase again, and after that Lieutenant Dickson.

When the catering officer arrived Tony formed the impression that it had taken little short of force to get him along. His face was flushed with sullen anger, and they could see that they were going to have a difficult time with him.

"Sit down, Purchase," Morrey barked. "All right. Stand up then," he went on as the man refused to take a seat.

What a disagreeable fellow, Tony thought as Purchase glared round. He probably was the one who murdered Baines, for if—as seemed likely—the slits had been made by the scalpel, then their search had been narrowed down to this awful man and Lieutenant Dickson. Tony couldn't imagine the smiling and pleasant Lieutenant being a killer, even though he had disliked Baines. No, Purchase was their man.

"When we saw you last," Morrey began, "you refused to answer our questions. It's now my duty to tell you that you need not answer the further questions I'm going to ask if you do not wish to. Or you may prefer to wait until you can get a lawyer. What do you want to do?"

This change of tactics visibly startled Ken Purchase. Slowly he took a seat.

"What—what is it you want to know?" he asked.

"Again I've got to advise you about your legal position," Morrey said evenly. "We're going to record your answers. We may need them as evidence."

Purchase's face paled but he said, "Ask away," with a shade of his former truculence.

Morrey pushed a photograph towards him.

"We're pretty sure," he said, "that this was the tool that cut the slits. It has your fingerprints on it. Explain."

The photograph was, of course, of the scalpel-like patching knife. Purchase picked it up and studied it intently while the three astrotecs watched him equally closely. Then Morrey produced a positive of the fingerprint Bob Campbell had discovered on the knife. Alongside he placed Purchase's official fingerprint record. While the catering officer maintained a stubborn silence, Morrey listed all the similarities between them. There could be no doubt that Purchase had used the scalped.

"Well?"

Morrey had barked out the question, and they were waiting for an answer.

"Are mine the only prints on it?" Purchase snapped back. He didn't attempt to deny the obvious.

"That's our business. But why are your prints on it at all? You're not a suit technician. You don't use it in the course of your job. Why, then, did you touch it at all? What did you do with it?"

He's cornered, thought Tony. He felt no pity for the man whom he so disliked and who, he was convinced, was the killer of William Baines.

For a moment the astrotecs thought that Purchase was going to be as stubborn as before, but he had been badly shaken by Morrey's warning.

"If I did use the knife it doesn't mean I cut the slits," he said defiantly.

"Then why did you use it?" Morrey persisted.

"To cut up some food," Purchase replied surprisingly.

"Explain yourself," Serge said.

"It's simple. I broke my own knife and couldn't put my hands on another one very easily, so I borrowed the one from the suit stores."

"Does anyone know?" Tony enquired.

"'Fraid not. I wasn't supposed to have done it, but there are many men and women on this base to feed, so I took a chance."

"Can anyone corroborate you?" asked Morrey.

"No. It's against regulations, so I took care not to let anyone know."

"What about the broken knife? You'll be able to produce that, won't you?" Tony said.

Purchase, who had begun to regain confidence, became confused by Tony's question.

"I—I don't know. I can't remember where I put it. It didn't seem important." The astrotecs looked at him narrowly.

"Try and think where it is," Morrey rapped out. "I'll send two of our crewmen to fetch it. Meanwhile you will stay here."

"Am I under arrest?" Ken Purchase asked bitterly.

"No, but your story will be much more convincing if you can direct my crew to that broken knife," answered Morrey.

"So unless your crewmen produce it I'm convicted of murder, am I?" Purchase demanded.

"I haven't said that. But you are sensible enough to appreciate your position if you can't prove your story."

"I can't remember where it is," the catering officer said doggedly. "They'll have to search for it."

"Very well," Morrey snapped. "I hope for your sake that they find it."

He gave orders over the phone for Norman Spier and Mervyn

Williams to search the kitchen thoroughly for the knife, and to Bob Campbell and Colin Johnson to come and take Purchase into their care.

The catering officer awaited his guardians sullenly, but he offered no resistance when they arrived and invited him to go along with them.

"Now for the Lieutenant," Morrey said, and a few moments later Dickson came into the office. He greeted the three astrotecs with a friendly smile.

"How can I help you, gentlemen?" he asked.

Morrey explained their theory that the slits had been cut by the scalpel, and that they were eliminating the owners of all fingerprints found on it. Though he wasn't a suit technician, one of the Lieutenant's prints had been identified. Could he explain?

"I'm not surprised," Dickson smiled. "You'll find I've handled nearly everything in this Base. You see, an important part of my job is to keep the inventory of all Base equipment. I spent most of my time checking and handling almost everything.

So that let out Lieutenant Dickson, Tony thought. He was pleased, for he liked the officer and would have hated any breath of suspicion to have hung about him. That fingerprint must have been made during the course of the Lieutenant's regular check.

"When did you last go through the implements in the suit stores?" asked Morrey.

"The day before Baines died," Dickson answered without hesitation. "It's all in my records if you wish to check."

"Do you have to keep a record of damaged or broken equipment as well?" asked Tony.

"Of course. Then I would make out an order for a replacement to be issued from stores. Maybe I might send a requisition to Earth if we hadn't the item in stock," Lieutenant Dickson explained. "It isn't a very exciting job, but it's very essential."

"Would you know, for example, if a kitchen knife had been broken?" Tony enquired innocently.

"I expect so. Breakages, damage and faults have to be reported so that the people on Earth can decide whether to alter the design or materials," Dickson told them.

"Could we inspect your records?" Morrey cut in quickly. He rather suspected that Tony's next question would be whether Purchase had reported his breakage. He didn't want any name to be mentioned to the Lieutenant at this stage.

"But of course," Dickson replied with a smile, "though I don't guarantee that my records show every broken cup and saucer. Would you like to see them now?"

"Why not?" grinned Morrey. "There's no time like the present. Will you do the job, Serge?"

He wanted to check Purchase's story as quickly as possible, for he had no power to detain him unless he arrested and charged him with the crime. Serge knew precisely what was in his chief's mind and what he had to look for. He rose and followed Dickson out of the Commander's office.

"We're getting somewhere now, I think," Morrey remarked as he and Tony were left alone.

It seemed all too easy. The scalpel had, without doubt, made the slits. Purchase's and Dickson's were the only strange prints on it. The catering officer had come up with a peculiar story about a broken-knife which was now being investigated. The Lieutenant had a perfectly reasonable explanation for his print. Also his records would help to prove or disprove Ken Purchase's story. If Purchase could be caught out in a lie, then it looked as if he was their man.

Furthermore Purchase had been near enough to the fatal crater to have wiped out the footprints in the short time that Tony was away, whereas the Lieutenant certainly hadn't left the Base once he had returned with Tony.

"I'm glad we've eliminated Miss Powell," Morrey confessed. "Emotional problems are all very well, but they're not my line of country."

Her name revived, for some reason, Tony's uncomfortable feeling that he'd forgotten something. Whether or not it was important he didn't know. He supposed he wouldn't have forgotten it if it had been really crucial. Still—he'd like to recall what it was.

Meanwhile Norman Spier and Mervyn Williams had gone to the kitchen alongside the canteen. There were four girls and two men on duty preparing and serving the never-ending succession of meals to the Base personnel. The crewmen were already known to the catering staff, so Norman had little difficulty in enlisting their assistance in his search for the broken kitchen knife.

"I know where it is," one of the girls volunteered. "Actually it was I who broke it, and Ken said he would take the rap. I'm afraid I was trying to prise a lid off a tin—which is something I shouldn't do."

"But why did Purchase say he would take responsibility for it?" Mervyn asked.

The girl coloured slightly.

"We're friends," she said, "so I expect he did it to save me getting into trouble. The broken knife is here."

She led them to a drawer in an unobtrusive corner of the kitchen. Among many odds and ends the crewmen found what they were after—the two pieces of the broken knife.

So, of course, Purchase had been lying when he said it was he who had caused the damage.

Back in the Commander's office Mervyn and Norman were reporting their findings to Morrey and Tony when Serge returned. A careful scrutiny of Lieutenant Dickson's records showed that he had indeed checked his inventory two days before the fateful event.

"I don't think we need bother any more about Dickson," Tony blurted out. "I'm sure we've got our man."

They explained to Serge that Purchase had been caught out in a lie about breaking the knife. Serge looked doubtful.

"Are you quite sure we've eliminated our other suspects? Dr. Powell, for example?"

Tony was about to protest indignantly at the cold water Serge seemed to be throwing over their case, but in that instant something clicked in his mind. He suddenly recalled what it was that he had been trying to remember. The mention of the psychologist's name had triggered off the memory.

When she fainted and fell, she broke one of her finger nails. From her handbag she later produced a pair of slim nail scissors, a blade of which could easily have cut the fatal slits. So—though her prints were not on the scalpel that seemed the most likely tool, she could easily have used her scissors—and no one would suspect!

"What's the matter, Tony?" Serge asked.

"Why it's—something I've just thought of," Tony said in a rush. "Perhaps we ought not to be too hasty with Purchase and the scalpel. What about Dr. Powell and her nail scissors?"

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"She could have used a blade of her scissors to cut the slits," Tony explained rapidly. "They were not on the Commander's list of likely implements because they are her personal possessions. Don't you think we ought to check them?"

"I do indeed," Morrey agreed, "but from what I remember of them—and we all saw them only for a few seconds—the blades seemed narrower than the scalpel. Remember that the length of the cuts matches the width of the scalpel."

"But she could have enlarged the slits," Tony argued. He hadn't wanted to believe that Dr. Powell might have done the killing, but in fairness to Purchase they must probe every alternative.

"Wait a moment," cautioned Serge. "I agree that Dr. Powell's scissors could enlarge a slit in the suit material. But she couldn't enlarge every slit by exactly the same amount. We'd better have another quick check and measure every one of those five slits carefully."

It did not take long. Every cut was exactly ten millimetres long. So that let out Dr. Powell. Without actually measuring the scissors all three astronecs were of the opinion that her scissor blades had been no more than eight millimetres in width, so she couldn't possibly have made the cuts and then enlarged them all to exactly the same length.

"Ah, well, it was a thought," Tony sighed.

At that moment Commander Morrison entered.

"How are you getting on?" he asked. "Made any progress?"

"A little" Morrey said cautiously, "but we still have a long way to go."

"I was wondering if I could 'borrow' back my office for a couple of hours," the Commander smiled. "There are one or two important reports I have to prepare."

"Certainly," Morrey, rising, said at once. "I'm sorry we've kept you out of it for so long. It's been a great help and very good of you to let us use it. Come along, you fellows."

They went along to Morrey's cabin, where Purchase was waiting with his two guardians, sitting sullenly on Morrey's bunk, while Colin and Bob watched him silently. As Morrey and his companions crowded into the small room Purchase stood up.

"Well?" he demanded. "Are you going to charge me, or do I go free?"

"Wait a moment," Morrey replied. "We know that it wasn't you who broke the knife. Why did you tell a lie about that?"

Ken Purchase's jaw jutted forward.

"You can leave Maureen out of this I suppose you got it from her that she'd broken it? Well—it was my responsibility, so leave the girl alone."

"You see, Purchase, you have told us a lie about this affair," Serge pointed out. "You leave us no alternative but to conclude that you are also lying when you said you didn't go near the crater and rub out the footprints. Only you could have done it."

Purchase seemed about to make a heated reply, but he suddenly changed his mind.

"I'm saying nothing," he growled. He sank back on Morrey's bunk, folded his arms and assumed a grim expression.

"Then I shall request Commander Morrison to suspend you from duty and confine you to your quarters," Morrey told him sharply.

"You going to lock me up?" Purchase asked sarcastically. "Where are the handcuffs?"

"There's no need to 'lock you up' as you call it," Morrey reminded him, "but you will be confined to your room."

"Do I get anything to eat? Or do you intend to starve me into a confession?"

Morrey didn't answer him.

"Take him to his room," he ordered Bob and Colin.

The two crewmen waited for their charge to get up from the bunk. For a few seconds he refused to move, and Bob Campbell, the hefty Ulsterman, was looking forward to using some persuasion when Purchase stood up.

"Fools!" he said venomously, and then strode out of the cabin, followed by Colin and Bob.

"We will report to Commander Morrison at once," Morrey declared after the three men had left. "I must get him to confirm Purchase's suspension."

The Commander was still in his office when the three astrotecs returned. He looked at them in some surprise. Morrey rapidly informed him of the position and requested the immediate suspension of the catering officer.

"Purchase!" exclaimed the Commander. "So you think he killed Baines?"

"It looks that way," replied Morrey, and he went on to tell the Commander of their line of reasoning—from the time they heard he was one of the people who disliked Baines, to his proximity to the fatal crater, the discovery of his fingerprint on the scalpel and the lie he had told to explain its presence.

"Has he admitted it?" asked the Commander.

"No, sir. He remains very truculent and unco-operative."

"Do you want to place him on a charge and ship him back to Earth?"

"Not yet," Morrey replied. "There are still one or two loose ends I'd like to tie up. But I've requested him to remain in his quarters, subject, of course, to your approval. Not that he could escape far," he concluded with a smile.

"Is this confidential?" the Commander enquired.

"I wouldn't broadcast it generally," Morrey told him. "Oh, I know you will have to tell certain people, but let's keep it to as few as possible as long as we can."

"Then I'll just tell Lieutenant Dickson and Purchase's deputy. That will probably do for the moment."

The astrotecs spent the rest of that work period drawing up a report and summary of evidence. They had the use of tapes on which were recorded the interviews they had had with Base personnel. The tape of the interviews with Purchase was kept separate from the rest. It would have to be sent back to Earth for use at his trial.

When they had had supper they talked for a short time before going to their bunks. It had been a tiring day, but at last the end of their task was in sight.

Tony lay quite still and relaxed, hoping to drift off into the sleep he so much needed. Yet, for some reason, it wouldn't come. Gradually he began to toss and turn more, and inevitably his mind went back to the case they had built up against Purchase.

It hadn't been a really difficult assignment. Within a few days they had pinned the crime on to someone, and soon they would be able to return to Earth. Most of the detective stories Tony had read had been much more complicated and difficult to solve. Only the brilliance of the detective-hero in the story had brought the criminal to justice. How simple their own task would have seemed to those masters of detection who constantly unravelled crimes of unbelievable complexity committed by the most skilful of master crooks.

Tony wouldn't describe Morrey, Serge and himself as brilliant detectives. But then neither would he regard Ken Purchase as a master criminal. True—there had been considerable thought and ingenuity shown in the method of Baines's murder, but Purchase had drawn attention to himself by his hostile attitude and the obvious lies he had told.

Yet he couldn't be all bad. Hadn't his girl friend—Maureen was her name?—said that Ken had insisted on taking the responsibility for the knife she'd broken? Oh—it was a trifling thing, only a petty breaking of regulations, but it must have seemed important to Purchase to protect Maureen. Of course, once having embarked on a course of lies he had to keep to his story and try to brazen it out. But at what a cost to himself!

It had been a heavy responsibility for the three astrotecs to seek out the murderer and to nail the crime on to Ken Purchase.

But they had done their duty. Morrey and Serge seemed satisfied that they had found the right man. Tony himself was almost equally sure. He disliked the catering officer, so he admitted to himself that he was pleased it was Purchase and no one else. With this thought he settled down to sleep.

However, slumber would not come. Was he really as certain as he ought to be that Kenneth Purchase was the killer? Had he told a lie for Maureen's sake, or in an attempt to evade the consequences of his own crime?

Meanwhile the subject of Tony's thoughts was lying on the bunk in his own cabin, staring at the ceiling above. It would have been hard to guess what was going through his mind. His face was set and bitter, and he had refused to speak to Bob Campbell and Colin Johnson. The two crewmen were sharing the duty of keeping watch on him, and it was now Colin's turn.

A knock came on the cabin door, and Colin went to see who it was. Probably someone with a meal for Purchase, though he had refused one already. This time the tray was carried by a girl, who pushed past Colin into the cabin.

The effect on Purchase was electric.

"Maureen!" he burst out, shooting off his bunk. "What are you doing here?"

"I've brought you something to eat. They told me you refused your last meal. Oh, Ken, you must have something to eat. Try this," the girl said, taking the cover off the tray.

"You shouldn't have come. Don't you know they believe I killed Baines? Go away, Maureen, before you get dragged into this."

"It's ridiculous. You couldn't kill anybody, Ken. I know that. I'm sure they'll find out who really did it. But you've got to eat this. I won't go until you have."

Colin Johnson watched the couple uncomfortably. He couldn't leave them alone, though it was plain to see what Purchase felt about Maureen. Obediently he began to eat what she had brought him, while she watched anxiously. There was so much they would have liked to say to each other, but Johnson was in the way.

"Don't despair, Ken," Maureen said. "I know things will come right in the end."

"Thanks, Maureen. But go now. I promise I'll eat everything you've brought. Come again when you can."

With a lingering backward glance the girl went out of the cabin, and Colin let out an unconscious sigh of relief.

The food must have done a lot for Ken Purchase. Or maybe it was the knowledge that at least one person had faith in him. A change had come over his face.

"I'd like to see the Commander," he told his guardian when he had finished his meal.

The request took Colin by surprise. Purchase had seemed sulky and taciturn, but now he was different. Maureen must have been a tonic for him.

"I'll go and let him know as soon as Bob comes," Colin replied. He would have liked very much to talk to Purchase, but he guessed Morrey would not approve. When Bob Campbell returned Colin hurried off to tell the astrotecs what had happened.

All three had gone to their cabins to rest, so the crewman, after a moment's hesitation, went to Commander Morrison's office to pass on Ken Purchase's request. Lieutenant Dickson was with the Commander when Colin entered.

"Very well. I'll go at once," Morrison replied. "Dickson, you can carry on here?"

"Certainly, sir. I'll wait till you get back."

With a salute the Commander went out of his office to visit the suspected man.

"What's happened?" Lieutenant Dickson asked keenly as soon as his Chief had gone. Colin told him of the surprising change in Ken Purchase's attitude after the visit of Maureen.

"Did he say anything?" Dickson demanded.

"No—just that he wanted to see the Commander."

"Well, Purchase, what do you want?" Commander Morrison asked.

"Simply that I should be either charged with a crime or allowed to resume my duties," answered Purchase. His bearing was calm and confident, and the Commander realised once more that he knew his rights.

"Come to my office in two hours' time and I'll decide then what to do," Morrison answered. This seemed to satisfy Purchase, and he returned his Chief's parting salute smartly.

"I'm puzzled," the Commander confessed to the Lieutenant. "Purchase seems a changed man. I'll have to let him resume his duties unless Mr. Kant can charge him. Would you go and tell Mr. Kant I'd like to see him at once. I'm sorry if he's in a rest period, but a definite decision is urgent."

"Very well, sir," the Lieutenant replied. "Oh, and shouldn't Purchase be given an opportunity for exercise? Now, in case Mr. Kant decides to charge him?

"Certainly, but I doubt whether he'll want to make an excursion in this storm. It's clearing a little, but it's still pretty dark outside," Morrison said absently. He felt he really ought to get instructions from Cape Kennedy.

Morrey was sound asleep when Dickson's persistent knocking aroused him. He made an effort to collect his wits, for this interruption must mean something had happened.

"Purchase has insisted on being charged or returned to duty," the Lieutenant explained. "He seems to have livened up, and taken food, and he's now demanding his rights."

"Tell the Commander I'll be along in ten minutes," Morrey answered, and Dickson, apologetically, withdrew.

Morrey rubbed his face thoughtfully. He hadn't wanted to face this situation just yet. He had hoped that, in face of all the evidence, Purchase would have confessed to the crime. But the man now seemed farther than ever from doing this. So Morrey must now ask himself "Am I certain, a hundred per cent certain, that Purchase killed Baines?" How would the evidence he had collected stand up in a court of law? What did Serge and Tony think?

It was a sleepy gathering that watched Morrey dress.

"Do we charge him or not?" was the question he posed to his companions.

"I believe we should," Serge answered with a yawn.

"I—I don't know," Tony confessed, and the others looked at him in some surprise.

"Changed your mind?" asked Morrey. "I thought that a few hours ago you were quite convinced."

"I was," Tony admitted unhappily, "but now I just don't know."

There was an uncomfortable silence.

"I'm going to tell the Commander to return him to duty," Morrey said with a sigh, "and I'll also ask for a Judge to be sent up to see if Purchase has a case to answer."

He went off to inform Commander Morrison of his decision, while Serge explained to Tony that by the code of law under which the United Nations Exploration Agency operated there must be a preliminary hearing for serious crimes. This preliminary hearing merely decided whether there was sufficient evidence to put before a Court, and not whether the accused person was guilty or not.

What would the Judge think, Tony wondered, of their case against Ken Purchase?

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When the two hours had elapsed the Commander summoned Purchase to his office.

"I've discussed the matter with Mr. Kant, and, pending a preliminary hearing of the case against you, you will return to duty. I have just heard from the Cape that Judge Charles E. Lapp will be arriving within the next seven days. If you wish for legal representation I can arrange this for you."

"No thank you, sir," Purchase replied with a hint of his old truculence. "I'll put my case myself. Perhaps Mr. Kant will now call off his watchdogs."

Morrey felt himself flush, but he controlled himself and merely nodded. Purchase went out of the office with a triumphant smile.

"Who is Judge Lapp?" asked Morrey.

"He's one of the five Judges seconded to U.N.E.X.A. for the purpose of administering Space Law," Morrison explained. "I've met him once or twice, and I once spent a week-end at his country home on Long Island. One joke he's fond of cracking is that he has more children than all the other Space Judges put together. Actually there are ten of them, and a jolly crowd they were."

"What's he like as a judge?" Morrey asked. He wondered whether Judge Lapp would pull his case to shreds.

"Very sound, I believe," the Commander answered. "He's human, but tough. He's an expert on U.N.E.X.A. law, and I understand that at one time he was in the running for the Supreme Court. You'll like him."

I wonder, mused Morrey.

The astrotecs reviewed their case against Purchase a score of times during the next few days. Was there anything they had overlooked? Were they making a colossal mistake which Judge Lapp would see plainly? How would Purchase react when questioned by a trained legal mind? If the Judge threw out their case, where else could they look for the criminal? Morrey went over each of the possible suspects, not even omitting Lieutenant Dickson. But in the end they came back to a unanimous conclusion. It was—it must be—Ken Purchase who had killed William Baines.

As for Purchase himself, he had returned to duty in the kitchens and canteen, and was carrying on as if nothing had happened. On the one or two occasions when the astrotecs had seen him, he'd given them a confident and provocative grin.

"Judge Lapp is on his way," the Commander told Morrey at one of their meetings. "He'll be here in about another thirty hours."

"Oh, so we'll be able to get down to business fairly soon after that," Morrey observed. "It will be a relief to put our evidence to the test."

"I wouldn't be too sure about when exactly the preliminary hearing can begin," the Commander said doubtfully. "You see, the Judge has never been in space before, and it's a great ordeal for a middle-aged man."

"Phew!" Tony whistled. "He must have guts, that Judge, to come out here when he's never even been to the Moon."

"He'll certainly want a few days to recover," Morrey conceded. "But hadn't U.N.E.X.A. a judge with space experience?"

"It seems not," Morrison replied. "As you know, most of the judicial hearings take place at the Cape after the alleged offender has been sent back to Earth. This is the first really serious crime that has been committed in space since exploration began way back in 1969."

"I hope the Judge stands up to the strain of the journey," said Serge. "Couldn't they have sent a younger man?"

"Not with the same legal experience, I understand," the

Commander replied. "That must have given Mr. Godfrey and Sir Billy Gillanders a nice little dilemma to resolve."

The next few hours dragged along. Morrey was a little reluctant to use the canteen, for as the Judge's visit drew nearer Purchase seemed to delight in letting the astrotecs see how confident he was. Though they didn't exchange a word, Tony had the impression that Purchase was looking forward to their complete discomforture.

As expected, Judge Lapp was in a poor state when the ferry from the Cape landed. In spite of all possible precautions, the fierce acceleration of the ship's motors had placed an intolerable strain on him. For two days Dr. Carter, the chief medical officer in Mars City, was somewhat concerned. But the Judge was a tough old boy and was soon insisting on getting on with the job for which he had been sent.

"How is he? I'd like to see him," Morrey said to the Commander.

"I'm afraid he won't see you," Morrison replied uncomfortably. "Oh, it's nothing against you, but the Judge is scrupulously fair and insists on making this plain. He wouldn't want Purchase, albeit wrongly, to believe that you had influenced his decision. Of course, once his job is over you'll find him the best of company."

"I'll be glad when this thing is settled and we can go back to Earth," Morrey muttered to himself. For the twentieth time he told himself that it was natural that he should want to get back to the Cape, it didn't mean that he had doubts about his case. The hearing just couldn't begin too soon for him.

He was walking away from the Commander's office, deep in thought, when someone collided violently with him. But for the low Martian gravity he would have fallen heavily, and so would the other person. Rather annoyed, he picked himself up.

"Mr. Kant! Mr. Kant!"

It was a girl who had run into him, and he saw it was Ken Purchase's friend and that she was terribly upset. She seemed to have been running blindly towards the Commander's office.

"Mr. Kant! It's Ken! He's disappeared!" She gasped.

"What do you mean? Try and collect yourself and tell me what's happened," Morrey said, helping the girl to her feet. She had to make a great effort at self-control before she could tell her story.

Maureen explained who she was and what her duties were—which Morrey already knew. Ken Purchase should have been on duty more than an hour ago, and he hadn't reported. This was so unusual that Maureen had thought he must be ill. She'd been to his cabin, but there was no sign of him. Still more worried, she'd left her job in the kitchen and had gone looking for him in every place she could think of. By now she was convinced that something dreadful had happened to him, and she was just coming to tell the Commander and plead for a full-scale search.

Morrey tried to calm her.

"Don't get alarmed, Maureen," he said. "Purchase must be somewhere. Maybe there's a simple explanation for all this. But come along. I'll go back to the office with you."

It was certainly puzzling, Morrey reflected, as he accompanied the girl back to see Commander Morrison. From all he had learned, Purchase had been carrying out his duties meticulously since he'd been released from detention. He had everything to lose, and nothing to gain, if he neglected his job now.

"When did you last see him? Was he quite well then?" Morrey asked as they hurried along.

"We had a meal together in the canteen when we finished our last work period fourteen hours ago," Maureen told him. "Ken came with me to my cabin, but didn't stay. He was quite well when he left me. In fact, I've never known him ill at all."

Commander Morrison looked up in surprise as Morrey and the girl entered.

"This young lady tells me that Purchase has vanished. Tell the Commander your story, Maureen," the astrotec said.

The girl repeated what she had told Morrey. A frown appeared on the Commander's face and deepened.

"All right, Miss Wysocki," he said. "Go back to your duties and leave this to me."

Maureen looked anxiously from Morrey to the Commander and back.

"I just know Ken didn't do that awful thing," she burst out, and then she turned and went away.

"What do you think?" Morrison asked.

"I don't know," Morrey confessed. "It's the preliminary hearing in a few hours' time. I wouldn't have thought that had anything to do with Purchase's disappearance. As you know, he'd refused legal help and was intending to present his own case. He seemed confident."

"We'll find him all right," the Commander declared. "People can't just vanish in Mars City. What worries me is—has he done anything foolish? Has he done any harm to himself?"

"We'll only know the answer to that when we find him," Morrey said pointedly, and the Commander took the hint. With a few telephone calls a discreet but thorough search of Mars City was set in motion.

When Morrey returned to the astrotecs' quarters Tony and Serge were equally puzzled.

"He can't run away here, that's certain," Serge pointed out. "Was his bravado a sham, and was he really so scared that he can't face the hearing? This disappearance almost looks like an admission of guilt."

Tony was troubled. He hadn't been so sure as his colleagues that, after all, Ken Purchase was a murderer. But, as Serge said, this attempt to hide made things look very bad for him. If he was as innocent as he claimed, then one would have expected him to face Judge Lapp fearlessly. Purchase must know that, if he ran away, the finger of guilt would point strongly in his direction. And common sense should have told him that you don't just "disappear" in Mars City.

Within the hour Commander Morrison was able to inform the astrotecs that their suspect was certainly not within the confines of the Martian Base. Every square metre had been searched, every cupboard and every locker. Every place where a man might be concealed had been examined. Purchase was nowhere within Mars City.

"Then, of course, he must be outside," Tony said brightly, but the others were too worried even to smile.

"We can soon check," Commander Morrison snapped.

Telephone calls to all the airlocks revealed that Purchase had, indeed, gone on a lone excursion, and he hadn't returned. He'd been advised to stay inside Mars City, but no restraint had been placed on him.

Tony felt in his bones that there was something wrong. If Purchase had only wanted exercise he should have returned long before now,

"Maybe he's had an accident. We must go and find him."

"We'll have a job. It's still very murky outside," Serge pointed out.

It was quite true. The Martian dust cloud, though thinner, had not yet cleared away. Visibility outside would be but a few yards—which made it all the more strange that Purchase should have chosen to make an excursion for recreational purposes.

"He cannot be raised on his radio," the Commander informed them a moment later, "but, of course, he may be refusing to answer."

"Let's get moving," Tony urged. In a way he felt responsible for Ken Purchase. The man must be found if he was to stand up to that preliminary hearing.

Within ten minutes all three astrotecs, joined by their four crewmen, had climbed into suits and were waiting to pass through the same airlock that had recorded the catering officer's exit. Maureen, pale but controlled, had come to see them go.

"She's a nice girl," Tony thought as he fastened his helmet. "Would she be as friendly with him if Ken Purchase was really bad? Well—I suppose she could—if all I've read about girls is right."

When all seven of them were outside the Base Morrey gave them their instructions.

"We must spread out," he said, "but keep just near enough to see each other. We'll maintain constant radio contact with each other and with Mars City."

They formed a long line and moved forward methodically. They examined every hollow and hillock, every crater and rock and cleft. They looked everywhere for footprints. Unfortunately the dust was still thick enough to make tracking impossible, so they had no means of knowing in just what direction Purchase had gone.

"We'll now swing round to the left," Morrey told them all over their radios. "Keep the same distance apart."

It was going to be pretty hopeless, Tony told himself. Talk about looking for a needle in a haystack! This was much worse. Yet there was nothing they could do but plod on. They could hear repeated calls over the radio to Purchase, but still he was silent.

"We could go on searching for hours," Tony sighed. "Why did the silly fool want to come out in such weather?"

It was certainly difficult to keep in visual contact with each other, and for a short time Tony could see neither Norman Spier nor Colin Johnson, who were on either side of him. He could hear their voices in his helmet, but the gloom was so great that both had become entirely obscured from his view.

Should he stand still? If he moved forward would he get nearer to Colin or to Norman? It seemed that the tenuous link of being just able to see each other had been broken. And it was probably his fault.

Tony didn't want to inform the others, yet, that he was lost, though they would soon know. If neither of his neighbouring crewmen were in sight they wouldn't be able to see him either. He moved forward cautiously. Then his heart gave a little leap of relief.

A dark figure loomed out of the dust.

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This must be Norman. Tony breathed a sigh of relief. Though he had been able to hear the voices of his friends all the time, it had been a little bit weird to lose sight of them completely. He raised his hand in greeting to the crewman.

A strange thing happened. Norman, instead of returning his greeting, paused uncertainly for a moment and then moved away quickly into the gloom.

Astonished, Tony called out over the radio "Hey, Norman! what's the matter with you?"

The crewman's voice came back instantly. "I'm all right. What's biting you, Tony? You lost?"

"Of course I'm not lost. I've just waved to you, haven't I?"

"Waved to me? I can't even see you," Norman's voice called back. "What are you on about?"

"Come off it, Norman. You must have seen me. You were less than twenty yards away."

"Well, that wasn't me. Maybe it was one of the others."

But one by one the others assured Tony that none of them had even caught a glimpse of him. They could just see each other, but not him. Had his imagination been playing him tricks, Tony wondered. If it was not one of his companions to whom he had waved, then who was it?

Purchase! It must have been Ken Purchase!

"Then I think I've seen him," Tony shouted over his radio. "I just waved to someone, and he turned and made off."

There was an exclamation from Morrey.

"If that was you, Purchase, stop acting the fool. Come back to Base," he said, knowing that the catering officer would be tuned in to the same radio wavelength. "You're making things look a lot worse for yourself."

They all listened carefully, but there was no reply. Tony tried another approach.

"Maureen is worried sick over you. Come back inside, Ken," he called. That ought to fetch him, Tony thought.

It didn't. Perhaps Purchase's radio wasn't working. Surely he wasn't being stubbornly silent?

"Let's get searching again. If any of you see him, grab him and yell out. We've got to get the fool back to Base," Morrey's voice said grimly.

They all floundered on. Tony was more than puzzled at Ken's behaviour. Concentrating more on trying to guess the reason for it than on looking where he was going, he tripped and fell.

It wasn't a loose rock or boulder that had tripped him. To his consternation he saw that he had fallen over someone in a spacesuit. There was no need to peer through the vizor or to read off the suit number from the metal tag. This could only be Ken Purchase, who had rushed away from him a moment before.

"I've found him. He's right out," Tony called. "I can't see what's happened yet."

He knew that now all his friends would be making their way towards him as best they could. Meanwhile he bent over the recumbent form and confirmed that it was, indeed, Ken Purchase. It was difficult to examine him in the half-light, so Tony was very fortunate in finding the cause of the trouble at once. The oxygen tube from his life-pack to his helmet was hanging loose!

More quickly, almost, than it takes to think, Tony had pressed the loose end into the inlet valve of Ken's helmet. It was probably a futile action, for if his oxygen had been disconnected for more than a few minutes the gas in his helmet would have been used up and it would be too late to save him. But then—he'd seen him a few moments before. The accident, if accident it was, could only just have happened. There might be a chance of saving him.

There was! By the time Morrey, Serge, and the four crewmen had found them, Purchase was beginning to revive. The oxygen from his lifepack was flowing once more into his helmet, and soon he would regain consciousness. Until he did his rescuers could talk freely.

"Did he pull the tube out, or was it an accident?" Serge asked, posing the question that was troubling them all.

"It's hardly likely to be an accident," Tony said. "There's no rough ground here that might have caused him to fall."

The others couldn't but agree. So—it looked as if Purchase, having been spotted by Tony, felt that the game was up and had taken this way to end his own life. He was not prepared after all, it seemed, to face Judge Lapp. Which could only mean that he was guilty of the murder of William Baines.

The sound of Purchase's gulp of oxygen came over the radio plainly. Within five minutes he sat up. Norman Spier and Bob Campbell lifted him to his feet.

"Take him back to the Base," Morrey ordered sternly.

"What—what's happened?" gasped the catering officer going along without resistance.

"You tried to kill yourself," Morrey snapped, "but Tony was along just in time."

Purchase halted abruptly.

"Kill myself? You fools! Of course I didn't. Someone came behind and tore out my gas tube," he shouted.

"Tell that to the Judge," Morrey said shortly, and indicated that Bob and Norman should urge him along.

"I tell you someone came along and pulled my tube out," Purchase insisted desperately. "Why should I do a thing like that myself? I'm innocent of killing Baines. You must believe me."

"Get him back to the Base," Morrey told the crewmen. "We can't stand arguing here all day."

But still Purchase wouldn't move.

"I'm pretty certain I know who it was who tried to kill me," he said urgently. "I saw his suit number. It was 749."

"We'll soon check that back in the City," growled Morrey.

"Now, are you coming under your own steam—or do we have to carry you?"

Without reply Purchase turned and loped off. With the astrotecs and crewmen bunched round him he made his way towards the Base. It wasn't easy to find, but at Morrey's request a powerful beam of light was being radiated, and this helped.

Suit Number 749? That rang a bell with Tony. Surely Ken Purchase wouldn't be such a fool as to make his case even worse by telling another deliberate lie about something that could so easily be checked?

If he was telling the truth, then the whole situation might be changed. It would mean that someone had intended to kill the catering officer. But why? Revenge for the death of Baines? Or—gosh! Could it be that Number 749 intended it to look as if Purchase had killed himself? Everyone in Mars City knew that he was under suspicion of committing the capital crime. His apparent suicide would clinch the matter and "close the case". Which would suit Number 749 if he, or she, was the real murderer.

It was only because he had no wish to be ridiculed that Tony managed to refrain from bursting out with the ideas that came tumbling into his head. He would hate to look foolish in front of his friends. Perhaps they wouldn't think his way at all. It would be better if he kept his thoughts to himself and did a little bit of detective work on his own.

Maureen was waiting just inside the airlock. Even as Purchase removed his helmet, and before he could get out of his suit, the two had greeted each other with visible emotion. Tony felt uncomfortable watching them. From his joy at their reunion it didn't look as if Ken Purchase had intended to kill himself. Which strengthened Tony's growing conviction that they must still search for the killer of William Baines.

Morrey and Serge thought differently. They were more convinced than ever that Purchase was guilty, intended to kill himself, and then regretted it. That was why he'd come out with the unlikely story that someone, wearing suit 749, had crept up behind him and pulled out his oxygen tube.

"Look after him, Maureen. Don't let him out of your sight," Morrey told her. "Next time Mr. Hale might not be on hand so quickly."

"I'll look after him, Mr. Kant," Maureen declared. She linked her arm firmly with that of Purchase and led him off to the stores to get rid of his suit.

"I suppose we must go through the motions of checking his story," Morrey said a little later, as the astrotecs and crewmen sat in the canteen. "Mervyn, will you find out who owns suit 749, and if, by any chance, the owner has been outside during these last two hours."

The Welshman nodded and left the others to finish their meal. Tony didn't feel particularly hungry—which was most unusual for him. He couldn't help thinking of Purchase and Maureen. Before they had finished eating Mervyn Williams had returned and brought back some interesting information.

"Suit Number 749 belongs to Percy Roberts, the man in charge of the algae tanks," he reported. "He has been outside, and he returned just before we got back."

Mervyn's announcement amazed his listeners. Tony sank back into his seat, while Morrey and Serge looked at each other in utter astonishment. Tony, strangely enough, felt pleased, but his senior colleagues were shocked.

"Purchase must have seen Roberts while they were both outside," Morrey declared grimly," and now he's trying to say that Roberts was responsible for his condition. What a rotten thing to do!"

Tony didn't see it like that. The fact that Roberts, wearing suit Number 749, had been outside Mars City at the same time as the catering officer was, at least, partial corroboration of his story. How, otherwise, could he have chosen that particular number? But why had Roberts tried to kill Ken? He hadn't been one of the original suspects. His fingerprints hadn't been on the murder weapon.

"We must see Roberts," Serge said. "Shall we do it now?"

Morrey nodded. He had no doubt but that Roberts would strongly deny the allegation. Yet they must check.

They found "the Plumber" among his beloved algae tanks, where he seemed, almost, to sleep. He was never happier than when he was tending the myriad little plants that provided so much of the Base's food supply.

"Mr. Roberts," Morrey began, "I understand you've just had a walk outside. Did you see anyone during your excursion?"

Roberts removed a thermometer from one of the tanks and looked at the astrotec with a smile.

"Sorry to disappoint you, Mr. Kant," he said. "I haven't been outside the Base for over a week."

"Come now, Roberts, you were seen outside less than an hour ago."

The smile faded from "the Plumber's" face.

"Mr. Kant," he said, "is this some sort of a joke? If it is, I don't like it. I tell you I haven't been outside Mars City for over a week. Check if you like."

"We have, and I tell you that you have been outside, Roberts. So why lie about it?" Morrey asked angrily.

A flush came to "The Plumber's" face, and his jaw began to stick out.

"I don't like being called a liar, Mr. Kant, by you or anyone else. I can prove that I haven't been outside the Base, or even outside Dome 4. Come with me."

Without waiting for Morrey to reply, Roberts swung away angrily. He was making for the gymnasium in Dome 2. It was a silent procession that followed him.

Inside the gymnasium were twenty or so men and girls, performing the exercises that U.N.E.X.A. insisted on to keep them fit. Without such exercises they would soon become flabby under the low Martian gravity, and the consequences, when they returned to Earth, would be unpleasant. Roberts called to two of the men who were pedalling furiously on what looked like stationary bicycles. Wonderingly, they jumped off their machines and came up to the little group.

"Jim, Tex, Mr. Kant doesn't believe that I haven't left the City during the last two hours. Tell him," he said.

The two men, visibly sweating from their exercise, looked at each other and at Morrey.

"We were both on duty with Percy until half an hour ago," the one called Tex said quietly. "If he's been outside the Base it's within the last thirty minutes."

The other, Jim, silently nodded confirmation.

There was a short pause while Morrey eyed the two men keenly.

"Thank you," he said at last. "Sorry I didn't believe you at first, Roberts." He turned and led Tony and Serge from the gymnasium.

"What's happened?" Tony burst out as soon as they were out of the gym. "Purchase says Roberts pulled out his tube. Jim and Tex say Roberts never left the Base. Yet the airlock log book says that he did."

Morrey's face was set. He had thought that his task was over, but it was becoming more confused than ever. He'd believed that he and his companions would soon be on their way back to Earth. Now he didn't know what to think. He must report to the Commander.

So preoccupied was Morrey that he didn't notice Tony slip away. The suit stores was his objective.

"Did you want something, Mr. Hale?" Page, the suit technician asked.

He was just leaving the suit stores as Tony reached it.

"It's all right, thank you," replied the astrotec. "Who's on duty?"

"No one—at the moment. There's very little call to issue suits during the dust cloud outside. We have plenty of other things to do, so if we've caught up with all our jobs in the stores we switch to other work. Did you want your suit, Mr. Hale?"

"No. I just wanted to look at Number 749," Tony answered. "Has it been used lately?"

Page returned to the stores with him, and while Tony walked along the rows of lockers the technician looked through his records. As Tony opened the locker numbered 749 Page called out "No, Mr. Hale, Percy Roberts hasn't used his suit for some time."

Tony didn't reply. He was staring at the spacesuit he'd found. It was covered with dust and had certainly been worn outside the Base very recently. Also it had been put away in a hurry. Page was astonished and troubled when Tony called him to the locker.

"There's something funny here," he declared. "Roberts never reported he'd been using it. And it's against regulations to put it away like that."

"Roberts didn't use it," Tony said quietly. "Someone else did. Roberts has witnesses that he never left the Base."

Page gaped at the astrotec.

"You—you mean someone has been outside wearing Percy's suit?" he spluttered.

"It seems like it," Tony answered grimly, "but keep this to yourself." It was time, he decided, to do a bit of detective work on his own.

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From what he knew about how the Base operated, Tony was aware that everyone wore his own suit—and no other. Each suit was tailored to fit the individual, so they varied considerably in size. It would be uncomfortable and dangerous to attempt an excursion in a suit that was too small or too large. So if someone had worn Percy Roberts's suit, that person must be about the same size as the owner.

But why should anyone want to do so? Obviously it must be because he wished to conceal his own identity, which would be revealed by the numbered tag and recorded in the airlock log book. Someone, approximately the same size as Roberts, had wanted to leave Mars City without its being known.

It would be easy to enter the suit stores while the technicians were engaged on other jobs. It would not be difficult to select a suit of the right size—in this case Number 749—and put it on, then, with the helmet in place to conceal the features, leave Mars City with someone else's identity. The men at the airlock would record the number on the metal tag without peering into the vizor to see if the number tallied with the wearer.

The return would be no more difficult. Many people preferred to walk straight to the stores without waiting to remove their helmets. The wearer of Number 749 had done this, found the stores again unmanned, taken off the dusty suit and put it away in its locker. Provided no one saw him leaving the suit stores his excursion would be secret. Roberts, plainly, had not been outside. Then who had?

Tony felt a growing sense of excitement. He knew, now, that he was on the track of the real killer of William Baines.

"You remember how, when we started our investigation, we suspected everyone," Tony said. Page nodded. "We certainly suspected you. Would you like to help me find the real killer?"

"Of course I would, Mr. Hale," Page replied eagerly. "Frobisher and I were pretty riled when you seemed to think we might have killed old Bill. What can I do to help?"

"I've a strong suspicion that the person who 'borrowed' Percy Roberts's suit, and the person who killed your friend, may be one and the same. So—I want to find out who wore the suit."

"It won't be very easy," Page said thoughtfully. "I don't suppose he's left any clues. But I'll have a look."

"What I would like you to do is to make me a list of all the people in Mars City about the same size as Roberts. You can get it from your records, can't you?"

Page nodded. He could see what Tony was after. If the person who had killed his friend Bill had worn Suit 749, it would eliminate many of the Base personnel, for whom 749 would be either too large or too small.

"I want you to keep this confidential," Tony went on. "Please don't tell anyone at all, not even my own friends. I want to put something to the test. If I'm wrong I don't want to seem foolish to too many people."

"You can depend on me. I won't say a thing—not even to the other technicians. I can have a list ready for you in an hour."

"Do that, and I'll meet you in the canteen. Try not to let anyone see you give it to me."

Ken Purchase was in the Commander's office, talking to the Commander, Morrey and Serge, when Tony arrived.

"Come in, Tony," Morrey said. "Purchase is just about to tell us what happened."

The catering officer waited for Tony to find a seat before proceeding. He seemed quite changed since his narrow escape outside Mars City.

"I—I haven't thanked Mr. Hale sufficiently yet," he began, but Tony cut him short.

"Forget it, Ken," he said uncomfortably, "it was just luck I happened to be along."

"You were going to tell us why you went outside," Morrey reminded Purchase.

"Sorry, Mr. Kant, but I felt I had to say another 'thank you' to Mr. Hale. I haven't seen him since. Well, as you know, when you thought I'd killed Bill Baines you kept a very close watch on me. I felt like a prisoner, and that's one thing I can't stand. It was better, of course, when I returned to duty, but I was still bursting for the freedom of a long walk outside. After I'd said good night to Maureen, I knew I couldn't stick it any longer. I told Lieutenant Dickson I was going out for a spell and he said it would be O.K."

"But you switched off your radio," the Commander pointed out. "Why did you do that?"

"I know I shouldn't have done," Purchase confessed, "but I wanted to think—and think. The only way I could do it was to go for my walk and cut out the world by shutting down my radio. You see, I wanted to collect my thoughts about the best way of presenting my case to Judge Lapp."

"What happened when you were out there?" asked Serge.

"I knew I couldn't wander far from Mars City," Purchase said. "With the present weather conditions it wasn't desirable or necessary. I could be shut off completely a few hundred yards from the Base.

"I suppose I wandered about for some time, puzzling out what I should say to the Judge. Suddenly I saw this chap in Suit 749. Before I could do a thing he'd whipped out the oxygen tube and struck me a blow which laid me out. Whether he said anything or not, I don't know, for I'd still got my radio cut. The next thing I knew was Mr. Hale bending over me."

"Do you know who your alleged assailant was?" Morrey asked.

"Alleged? He was my assailant all right. No, I only noticed the number 749 on his suit. I didn't see his face, but surely the number is enough to identify him?"

"That's the trouble—it isn't," interjected Tony. "That suit belongs to Percy Roberts, but it wasn't he who was wearing it."

Purchase was astounded.

"Then—it was—someone else who bashed me?" he stammered.

"It was. And I think I'll soon know who that person was," Tony declared, to the surprise of Morrey, Serge and the Commander.

"All right, Purchase. That will do for now," Morrey said hastily. He didn't want Tony to say too much in front of the catering officer. It looked as if Purchase's account of the incident might be true, but in Morrey's opinion it didn't prove that he hadn't killed Baines. Maybe someone who knew Purchase had committed the murder was intent on exacting a personal vengeance without being found out himself.

As soon as Ken had left the office Morrey turned to his young friend.

"What do you mean, you think you'll soon know who did it?"

"Oh, it's just an idea I have," Tony replied coolly. "I'm keeping it to myself until I'm a bit more sure."

Soon afterwards he excused himself and slipped away to the canteen, where Page was waiting. The technician had his list of Base personnel who might possibly have worn Suit 749. As Tony glanced down the thirty-two names, one caught his eye. This was what he was waiting to know. Now he would put into operation a daring plan which would reveal the murderer without any shade of doubt.

Tony talked with the suit technician for some time and made certain suggestions. In the end Page nodded and promised to do what Tony had asked at once. Satisfied, Tony went from the canteen to the kitchen, where Ken Purchase had gone because Maureen was on duty.

As soon as he saw him the catering officer left the girl and came over to Tony.

"I really am grateful, Mr. Hale," he burst out, gripping Tony's hand. Maureen continued her work, but her eyes were on them.

"Forget it, Ken," Tony said with a grin, "but I want you to do something for me."

He spoke quietly to Purchase, who listened and then nodded.

When Maureen had finished her spell of duty, Ken was waiting for her to go to the gym. They both had to do their daily quota of exercises, and preferred to do them together.

"You're very quiet, Ken," Maureen observed as they walked along.

"Am I? Oh, I was thinking," he said, and relapsed into silence. He didn't speak again until they were having their first rest from the "bicycles".

"You know, Maureen," he said, "I'm sure I've found something outside that will prove my innocence and show the astrotecs who did commit the crime. I'm going out to get it."

"But you mustn't, Ken. Think of what happened last time."

"I know—but I've just got to do it, Maureen. I'm not a prisoner, you know," he reminded her, "so I'm going to slip out again soon."

In spite of all her attempts to dissuade him, Purchase was adamant. When she said she would come with him, he declined angrily.

"This is something I've got to do myself," he said grimly. Maureen could have wept. They hardly spoke when they parted.

"If I can't stop him, I'll find someone who can," the girl told herself when she was alone in her cabin. To whom should she go? The Commander? Mr. Kant?

She wasn't keen to go directly to Commander Morrison with her small personal problem. Oh—it was great enough to her, but to the man in charge of the whole Martian Base it would seem trivial indeed. As for Morrey Kant, it didn't seem very long since she'd poured out to him her story of how Ken was missing. She could imagine how angry he would be about this second sortie. So perhaps she'd better go to Lieutenant Dickson. He would understand.

Maureen made her way to Dickson's cabin as rapidly as the low Martian gravity permitted. She knew that the Lieutenant would be off duty, but her worry about Ken was so great that she had no qualms about disturbing him during his rest period. She knocked urgently.

Dickson came to the door, the book he had been reading still in his hand.

"Miss Wysocki!" he exclaimed. Then, seeing her condition, "What's the matter, girl?"

"Lieutenant! It's Ken! He says he's going outside again. He won't listen to me. He says he's sure that last time he saw something that might be a clue to who really did kill Bill Baines, so he's going out to get it. Please stop him, Lieutenant."

"I can't, Miss Wysocki. Purchase is not under restraint and is free to go outside if he wished. But why are you afraid for him? Do you think someone else will attack him? Or do you really believe that he did try to kill himself, and will now try again?"

"Ken wouldn't do a thing like that," Maureen burst out. "Please stop him, Lieutenant. Order him to do something that will keep him inside."

Dickson closed his book and put it down.

"Go back to your cabin, and stay there. I'll see what I can do," he said slowly.

The mechanic at the airlock was wishing that this wretched dust storm would blow over. He wanted a walk outside himself, but didn't fancy it very much until the atmosphere was clearer. Very few people were passing in and out, and time hung heavily on his hands.

It was with some relief, then, that he saw a spacesuited figure coming towards him. At least someone was going to venture forth. He couldn't yet see who it was, for the figure already had his helmet in place. Ah! Number 902! Ken Purchase, of course. Hadn't he just had a narrow squeak outside? Why did the fellow want to go out again so soon?

"Glutton for punishment, aren't you?" the mechanic called into a microphone, for he was speaking over his helmet radio. Purchase signalled impatiently that he wanted to get going, so the mechanic shrugged, noted the exit in his log book, and let the catering officer through.

There were only two other people outside at that moment—Dushlak the geologist, who was collecting dust samples as he did during every storm, and André Cellier, the suit technician, who was testing out a modification he'd made. Now Ken Purchase made three. The mechanic wondered how soon any of them would want to return.

Gosh! Things were looking up! Here was someone else coming to pass through the lock. Why was it that everyone was wearing his helmet today, the mechanic wondered. To save time, probably. Still—it was easy to know who this one was. Suit Number 380 was the lowest number in current use, and could only belong to Jack Share, the oldest inhabitant of Mars City.

"Going out after some more baubles?" the mechanic, with a smile, asked over the radio. The Old Grey Fox just gave a grunt and disappeared through the airlock door.

"What's biting everyone today?" the mechanic grumbled as he filled in his log book.

Outside Mars City the atmosphere was still very murky. The wearer of Suit Number 902 didn't seem in any hurry or intent on going anywhere in particular. Instead he seemed to be hanging around just in sight of the airlock. Not until Number 380 emerged did he move away. Then he walked slowly forward, examining the ground as he went. Suddenly he stopped. He was on the edge of the crater where Baines had been found. Oblivious of the approach of the other figure, Number 902 bent over and was examining something with close interest.

Then things happened quickly. Number 380 had crept up while the other man was preoccupied with his find. With a quick movement Number 380 whipped out his oxygen tube and gave him a push which sent him sprawling into the crater. In a flash the attacker had leapt in also, and was holding his victim down. This time there was no rescuer, and within less than three minutes the struggles ceased. Number 380 stood up, brushed some dust from his suit, and set off back to the airlock.

For some reason he was kept waiting before the door was opened. That mechanic ought to be disciplined for slowness. Or perhaps he'd even dropped off to sleep. At last the outer door opened and Number 380 stepped inside. It took but a few seconds for the chamber to fill with air to match the pressure inside Mars City. Then the inner door opened to let the impatient man through.

There was a little knot of people waiting in the airlock anteroom. Number 380 was about to push his way brusquely past them when he caught sight of one of their number. The shock was so great that he staggered and nearly fell. He didn't see that a second suited figure had followed him quickly through the lock. For the one of the group on whom his attention was frozen was none other than Purchase, whom he had just left lifeless outside.

The second figure, wearing Suit Number 902, was quickly removing his helmet. The loose oxygen tube dangled from the lifepack. With the mechanic's help the helmet was put aside.

"Lieutenant Dickson," said Tony sternly—for it was he who wore Suit 902—"I arrest you for the murder of William Baines."

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"Now start from the beginning," Morrey said patiently, "and tell us all about it. You did believe at one time that Purchase had done it, didn't you?"

"Yes, I did. I didn't like the fellow at the start. He was truculent, insolent and aggressive. Perhaps that made us all suspect him—because we wanted to."

"It wasn't only his attitude," Serge pointed out quietly, "for, remember, he told lies which we proved were lies."

"About the knives? That was certainly the height of folly under the circumstances," Tony agreed, "but, as we now know, he only did it to protect Maureen. He's really fond of that girl, just as she is of him."

"He was certainly breaking regulations using the scalpel for kitchen work," Commander Morrison observed, "but we'll let that pass for the moment. When did you begin to suspect Dickson?"

"I hardly know," Tony admitted. "I suppose it's something that had been building up gradually. We don't yet know his motive, but I guess that will come out in the end. I think that the first thing that made me start to wonder about him was his fingerprint on the weapon. Oh, I know he explained it by telling us that part of his job was to check the inventory, which means that he handles everything. But I found when I looked at the list of prints that his were on very few of the tools besides the scalpel. I thought at the time that they should have been on every one."

"But it wasn't Dickson who destroyed the footprints round the crater," Morrey pointed out. "He was with you all the time, and it was proved that he didn't go out again until after the damage had been discovered."

"He had no need to," grinned Tony. "I was a fool not to think of it before. You remember that he bumped against me and knocked me over just as I was getting out of the crater? Well—he rubbed out the footprints while I was down. And I thought how nice he was—apologizing and helping me up."

"Did he have the technical knowledge to make the slits?" Serge asked the Commander.

"Certainly," Morrison replied. "Officers have to know a little bit about everything. We get courses in these things back on Earth. Dickson had recently been to a course on suit construction and maintenance. He'd know just where to cut the slits."

"Then there was that accident to Purchase," Tony went on. "We know, now, that he was telling the truth when he said he'd been attacked and his oxygen tube pulled out. Whoever his attacker was, he must have known that if it could be made to look as if Ken had committed suicide, it would be taken as confirmation of the case against him. So there was a good chance that whoever tried to kill Purchase, was the same person who had murdered Baines."

"How did you get on to Dickson?" Morrey asked.

"I got Page, the suit technician, to give me a list of all the people who could possibly have worn suit Number 749. There were thirty-two of them, and Dickson's name was included. This strengthened my suspicion, but it wasn't enough. I decided to bring matters to a head by laying a trap for the murder with myself as the bait."

"You wouldn't have done it if I'd known," Morrey growled. "We don't want you to be another victim."

"I remembered that Purchase said he'd told the Lieutenant about his proposed excursion," Tony went on, ignoring Morrey's remark. "He'd cleared it with Dickson, who was, perhaps, the only person who knew what Ken was going to do. I've already said why I believe Dickson wanted it to look as if Ken had taken his own life, but naturally he didn't want anyone to know that it was he who had followed Purchase outside. So he decided to wear someone else's suit to conceal his identity.

"He was fortunate, because while the dust cloud is on, there aren't many people who want to take a walk for their health. So the suit stores are only manned sporadically. Dickson watched for an opportunity, entered the stores when there was no technician on duty, and slipped into Suit 749. The mechanic at the airlock booked him down as the real owner of the suit, who, as we now know, was Percy Roberts. Dickson was wearing his helmet when he reported for passing through."

"That's something that must be stopped at once," Commander Morrison declared. "No helmets will be worn until after the entry in the log book."

"Good job that isn't in operation now," Tony laughed, "or my own scheme wouldn't have worked."

"You'd better tell us about it," Morrey said severely.

"Oh, come off it, Morrey," Tony said. "It was the only way to nail our man."

"But you ran a frightful risk," Morrey insisted.

"Not at all. I'd prepared for it. You see, when I realised that someone had worn Percy Roberts's suit, I thought that two could play at that game. As it happens, my suit is the same size as that of Ken Purchase, so I decided I would go out and try to get the murderer to attack me.

"I got Page, the suit technician, to modify Ken's suit. He's been very helpful and fitted a concealed oxygen supply tube. The one that Dickson whipped out, though it looked genuine enough, was a false one. When he attacked me I had to pretend to be dead so that I could give him a double shock when he got back inside. As you know, it was enough to make him confess."

"But how did you get him to follow you?" Serge wanted to know.

"It was easy," Tony said with a grin. "First of all I had to persuade Ken Purchase to co-operate and to put around the story that he'd found a clue outside which might prove who the killer was. Then he was to lock himself away out of sight so that no one would know it was me inside his suit—

until the right moment came.

"The hardest part was in persuading him to deceive Maureen. He didn't want to cause her any more distress. However, I told him it was the only way to get at the criminal."

"How did you ensure that Dickson would hear you'd gone outside?" Commander Morrison enquired.

"I guessed that Maureen would be upset at Purchase's going out again after his very narrow escape. So I judged that, if she couldn't stop him herself, she'd try and get someone in authority to order him not to go. And that meant either you, Commander, or Lieutenant Dickson. My hunch was that Maureen would go to Dickson first—and that is just what I wanted."

"How did you guess she'd do that? I thought you didn't know anything about girls," Morrey asked, forced to smile in spite of himself.

"Oh, you live and learn," Tony replied modestly.

The formalities before Judge Lapp didn't take long. There was no case to present, no facts to probe and test. Dickson made a statement to the Judge admitting he'd killed Baines. Under the skilled questioning of His Honour it soon came out that Dickson had conceived an intense and unreasonable dislike for the electronics expert. Baines was soon due for promotion, and Dickson believed that he would take his place. In the close confines and artificial conditions of Mars City that belief had soon become an obsession. So Dickson decided to kill his rival in a way which, he believed, would baffle everyone.

Morrey was anxious to return to Earth with their prisoner. The Judge would be staying behind for a few days to clear up formalities and to return by the slow ferry. The crewmen had prepared the ship and all was ready for the departure. Dickson never spoke if he could avoid it, so it was going to be a strained voyage with him.

Promptly on time the ship blasted off. Astrotecs and crewmen had said goodbye to the friends they had made in Mars City.

Ken and Maureen, standing very close to each other, had come to the airlock to see them off. Now, as the ship climbed away from the planet, the eight men settled down to the journey back to Earth.

Because it was the crew who had all the work to do, Morrey had plenty of time to think. In a way, he couldn't help feeling sorry for Dickson. The man had been an efficient officer, and it was a thousand pities that he had become so obsessed. Now he faced life imprisonment when he got back, and Morrey could imagine no punishment more terrible for one who had enjoyed the freedom of the skies and the ability to voyage in the vastness of space.

Ken Purchase, too, had seemed a changed character during their last few days at the Martian Base. He was no longer resentful of authority and in many ways had tried to express his thanks to the astrotecs, particularly Tony. As for Maureen, she had confided in Morrey that, though Ken didn't know it yet, they were going to get married on their first leave. The Commander had arranged for them to take it together, and Tony had promptly requested—and been promised—a hefty slice of wedding cake.

Now the ship was coasting along, and Morrey allowed his thoughts to dwell on the time they had spent in Mars City. What a catastrophe it would have been if they had arrested Purchase for the crime! He didn't like the job of being a space detective, but if ever he had to be so again he'd jolly well see to it that there was no shadow of doubt in his next case.

Several times Tony tried to get into conversation with Dickson, but the Lieutenant refused to be drawn. He preferred, it seemed, to spend his time brooding. Tony shrugged his shoulders. Well—he'd tried.

"Anyone like to come on the inspection?" Norman Spier asked.

He was referring to the routine inspection that usually took place during every voyage. It consisted of donning a spacesuit and clambering about on the outer casing of the ship looking for meteoric damage. It wasn't very often that anything serious was found, but astronauts made it an excuse to escape for a short time from the close confines of the cabin.

As usual, there was no lack of volunteers and Morrey was selecting who should go when, for the first time in hours, Dickson spoke.

"Do you think I could go?" he asked quietly.

Morrey and the others were greatly surprised. At first Morrey's inclination was to refuse. But then he remembered that this man was going to spend the rest of his life in prison, so he relented.

"Very well," he said briskly. "The party will be Serge, Norman, the Lieutenant, and Bob."

The other three chatted happily together as they put on their spacesuits. Only Dickson was silent. Then, one by one, they slipped out of the airlock and began clambering over the outside of the ship.

Each was tethered to the ship with a safety line, long enough for them to cover the whole of the exterior, and strong enough to prevent them from drifting away into space. Each man had a jet gun in his belt by which he could propel himself in any direction he wished.

It never failed to exhilarate the astronauts to be out in the great, silent emptiness, with the brilliant stars for their only company. It was hard to realise that, though they appeared to be floating gently alongside the ship, they and it were speeding back to Earth at a colossal speed. Already Mars had shrunk to the size of an orange, and Bob Campbell searched the skies with his eyes for the planet that was Home. There it was, that lovely blue and green globe that had everything they knew and held dear.

"Time to come in," Morrey called over the radio. The inspection was complete and there was no reason to remain longer outside the ship. But he knew how difficult it was to recall the men from gazing at the vastness of the Universe to enter the cramped interior of the spaceship.

"Just a couple more somersaults," Bob Campbell called back happily, and he went through his gyrations with the enthusiasm of a schoolboy.

At last Serge, followed by Norman and Bob, came in through the airlock. Now they were only waiting for the Lieutenant.

"Hurry along, Dickson," Morrey called out.

It was Tony, looking through a porthole, who saw what had happened. The Lieutenant had deliberately untethered his safety line and emptied his jet gun to propel himself away from the ship.

"He's taken off!" yelled Tony. The others crowded round the porthole and saw the rapidly diminishing figure shining in the rays of the distant Sun.

"Come back, Dickson, you fool." Morrey shouted into the microphone.

"I'll go after him," yelled Tony, but the others held him back.

"If he's emptied his gun no one could catch him," Serge pointed out soberly. Tony had to admit that it would be hopeless to try to overtake the Lieutenant, stop his headlong flight, and propel him back to the ship. Then the radio crackled out.

"I can't face prison," the voice of Dickson said, "so I'm ending it this way. Don't call me again, for I'm switching off my radio. Goodbye to you all."

There was a deathly silence in the cabin. Astrotecs and crewmen knew exactly how Dickson felt. No man who has experienced the glorious freedom of Space can ever willingly be confined again.

No wonder that the Lieutenant preferred to end his life wandering through the Universe until the end of Time.

Every one of them would have done the same.